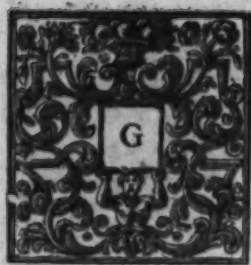




## GEORGE R.



**GEORGE** by the Grace of God, King of Great Britain, France and Ireland, Defender of the Faith, &c. To all to whom these Presents shall come, Greeting. Whereas James Leoni of Our City of London, Gent. hath humbly represented unto Us, That he hath with great Labour and Expence Published a Work, Entituled, (*The Architecture of Andrea Palladio, in Four Books, Printed in English, Italian and French, containing a short Treatise of the Five Orders, and the most necessary Observations concerning all Sorts of Buildings; as also the different Construction of Private and Publick Houses, Highways, Bridges, Market-Places, Xystes and Temples, with their Plans, Sections and Uprights, translated from the Italian Original, in Five Volumes in Folio*) and hath therefore humbly besought Us to grant him Our Royal Privilege and Licence for the sole Printing and Publishing thereof for the Term of Fourteen Years; We being willing to give all due Encouragement to Works of this Nature, are graciously pleas'd to condescend to his Request; and We do therefore by these Presents, so far as may be agreeable to the Statute in that behalf made and provided, grant unto him the said James Leoni, his Executors, Administrators and Assigns, Our Licence for the sole Printing and Publishing the said Work of Andrea Palladio, for the Term of Fourteen Years, to be computed from the Date hereof, strictly forbidding all Our Subjects within Our Kingdoms and Dominions, to reprint or abridge the same, either in the like or in any other Volume or Volumes whatsoever, or to import, buy, vend, utter or distribute any Copies thereof reprinted beyond the Seas, during the aforesaid Term of Fourteen Years, without the Consent or Approbation of the said James Leoni, his Heirs, Executors and Assigns, under their Hands and Seals first had and obtained, as they will answer the contrary at their Perils; whereof the Commissioners and other Officers of Our Customs, the Master, Wardens and Company of Stationers are to take Notice, that due Obedience be rendered to Our Pleasure herein declared. Given at our Court at St. James's the Fifteenth Day of January 17<sup>19</sup>/<sub>20</sub>, in the Sixth Year of Our Reign.

By His Majesty's Command,

J. Craggs.











THE  
ARCHITECTURE  
OF  
A. PALLADIO;  
IN FOUR BOOKS.

CONTAINING

A short TREATISE of the FIVE ORDERS, and the most  
necessary Observations concerning all Sorts of  
BUILDING;

AS ALSO

The different Construction of PRIVATE and PUBLICK HOUSES,  
HIGH-WAYS, BRIDGES, MARKET-PLACES, XYSTES, and  
TEMPLES, with their Plans, Sections, and Uprights.

Revis'd, Design'd, and Publish'd

By GIACOMO LEONI, a Venetian; *Architect to His most*  
*SERENE HIGHNESS, the Late*

ELECTOR PALATINE.

*Translated from the Italian Original.*

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IN TWO VOLUMES.

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THE SECOND EDITION.

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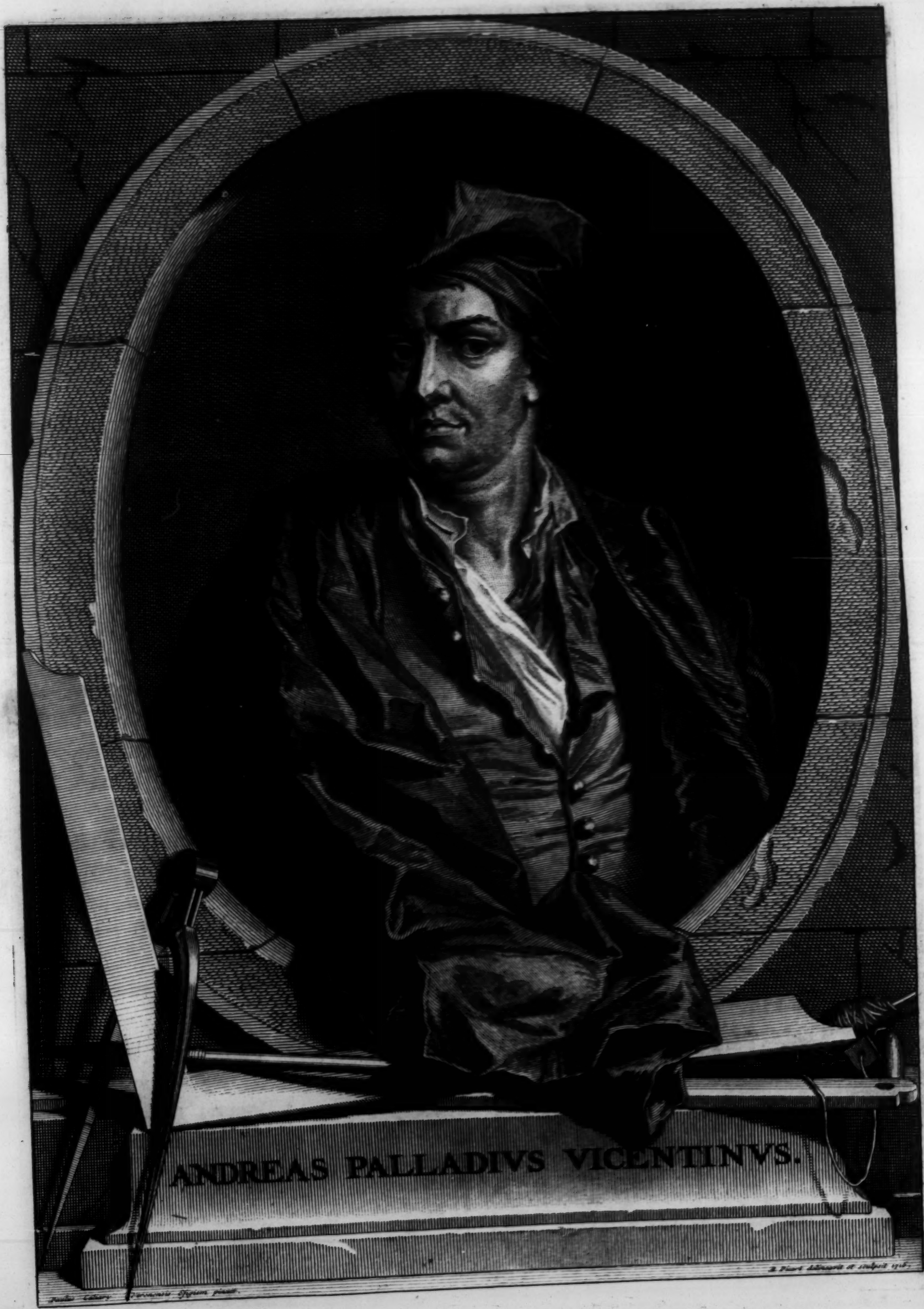
LONDON,

Printed by JOHN DARBY for the AUTHOR, and all the Plates by  
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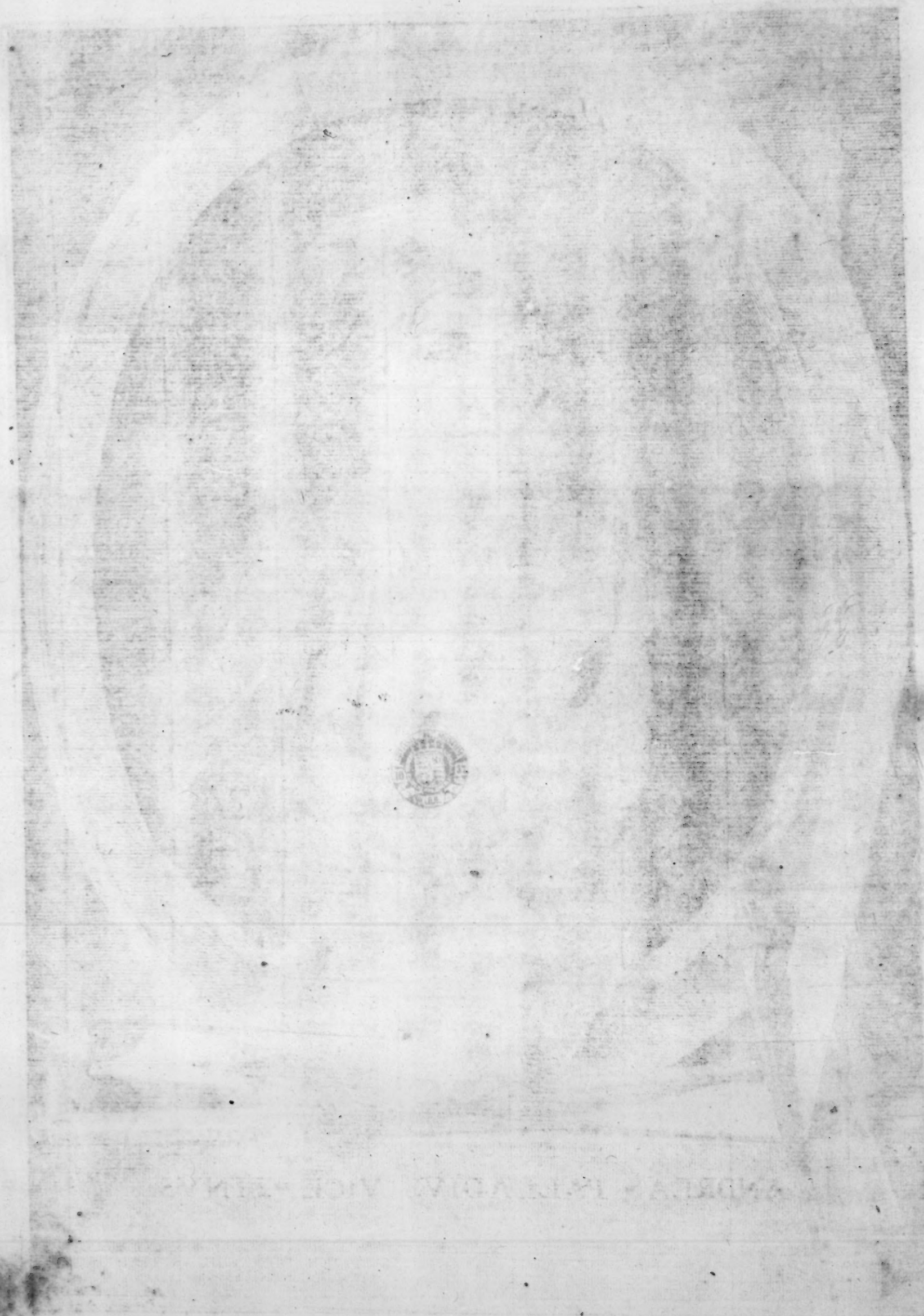














THE  
P R E F A C E  
TO THE  
R E A D E R.

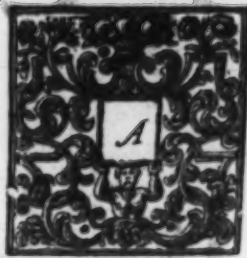


*AFTER five Years continual Labour, I have at last happily finish'd the Edition which I undertook of Palladio's Architecture. As for what concerns the Printing, there has been no Book hitherto more beautifully printed in England: I having resolv'd from the beginning to spare no Expence, that I might rather surpass the Expectation of my Subscribers, than come any way short of it. This will more evidently appear by the great number of Copper Plates and Designs, which I have added over and above what I promis'd. Such as are true Judges will, by comparing the Draughts of Palladio with mine, easily discern a vast difference. His Wooden Cuts I have chang'd into Copper Plates, which, for the greater Perfection of the Work, tho much to my own Loss, I have procur'd to be engrav'd in Holland by the famous Monsieur Picart, one of the best Masters of that Art in Europe. I have not only made all the Draughts my self, and on a much larger Scale than my Author; but also made so many necessary Corrections with respect to Shading, Dimensions, Ornaments, &c. that this Work may in some sort be rather consider'd as an Original, than an Improvement. In the mean time I offer my Service, either in Person or otherwise, to such of my Subscribers and others, as may have occasion for me in the way of my Profession; as I lay hold of this opportunity to return my Thanks to them for their readiness in forwarding my Undertaking, by subscribing towards it: And I hope they will continue to honour me with the like Encouragement in favour of another Work, voluminous indeed, but most useful and curious, as by the printed Proposals will appear.*

†

JAMES LEONI.





**ANDREA PALLADIO** (one of the most Learned Architects that *Italy* has produc'd, since the polite Arts begun to revive there) was born in *Vicenza*, a Town belonging to the Republick of *Venice*. His Parents were of mean Extraction, but in consideration of his great Abilities, and as a reward for the honour he did his Native City, he was made free of the same, and receiv'd into the Body of the Nobility. He had for his Master the Celebrated *Giovanni Giorgio Trissino*, under whom he not only learnt the most curious parts of Civil and Military *Architecture*, but likewise adorn'd his Mind with all sorts of Erudition. He made it his chief Study to search into the stately Monuments of old *Rome*, which he examin'd with unparallel'd Diligence and Attention. His Posthumous Work of the *Roman Antiquities*, tho imperfect, does yet sufficiently show how much he made himself Master of the Noblest Ideas of the Antients: for walking through the rubbish and other remains of these, he discover'd the true Rules of an Art, which till his time were unknown; even to *Michel-Angelo* and *Brunelleschi* his Contemporaries. The Exactness of his Designs can't be too much commended: 'tis pity that the Authors, who have made mention of him, are silent on the particulars of his Life. They have taken great pains in giving us a long List of the fine Buildings wherewith he adorn'd his Country, but to little purpose; since we have them drawn and explain'd by himself, in the second and third Books of his *Architecture*. He flourish'd in the 16th Century, and dy'd in the Year 1580.

THE



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# ERRATA.

## Vol. I.

Page 3. Line last but one dele makes. p. 17.  
 l. 3. read *superficies*. l. 21. read *made*. p. 23.  
 l. 31. read *Pedestal*. p. 27. l. 5. read *high*. p.  
 39. l. 16. read *Planks*. p. 42. l. 3. for *one*  
*third*, read *two thirds*. *Pallad*. p. 60. last line  
 but one, instead of *Udena*, read *Udene*. p. 70.  
 l. 1. add, *which were great Halls or Sallons for*  
*Feasting and other Recreations, &c.* p. 74. l. 4.  
 read *Virtuous*. l. 25. read *and*.

## Vol. II.

Page 3. Line 4. read *Palestras*. p. 10. l. 17.  
 read *Milliary*. p. 27. l. 20. read *delle*. p. 33.  
 l. 13. read *part*. *Ibid*. last Line in the Refe-  
 rences, the last B shoud be C. p. 42. l. 16.  
 read *Churches*. p. 57. l. 10. read *little*. p. 62.  
 l. 4. from bottom, read *which*. p. 65. l. 9.  
 read *which*. p. 70. l. 1. add, *of the Church of*  
*St. George the Great at Venice, whose length,*  
*&c.*



THE



THE  
P R E F A C E  
TO THE  
R E A D E R.



Y natural Inclination leading me, from my very Infancy, to the Study of *Architecture*, I resolv'd to apply my self to it: And because I ever was of Opinion, that the antient *Romans* did far excel all that have come after them, as in many other things so particularly in Building, I propos'd to my self *Vitruvius* both as my Master and Guide, he being the only antient Author that remains extant on this Subject. Then, I betook my self to the Search and Examination of such Ruins of antient Structures as, in spite of Time and the rude Hands of *Barbarians*, are still remaining; and finding that they deserved a much more diligent Observation than I thought at first Sight, I began with the utmost Accuracy to measure every the minutest part by it self: And indeed, I became so scrupulous an Examiner of them (not discovering that any thing, of this kind, was perform'd, without the justest Reason and the finest Proportion) that I afterwards, not once only, but very often, took Journies to several parts of *Italy*, and even out of it, that I might be able, from such Fragments, to comprehend what the whole must needs have been, and to make Draughts accordingly. Whereupon, considering how widely different the way of Building, commonly in use, is from the Observations I made on the said Edifices, and from what I have read in *Vitruvius*, in *Leo Baptista Alberti*, and other excellent Writers since *Vitruvius's* Time, as well as from Buildings of my own Performance, which rais'd my Reputation, and gave no small Satisfaction to those who were pleas'd to employ me, I thought it an Un-

B dertaking



# P R E F A C E.

dertaking worthy of a Man who considers that he was not born for himself only, but likewise for the good of others, to publish to the World the Designs (or Draughts) of those Edifices, which with equal Expence of Time and Danger of my Person, I have collected; and briefly to set down what seem'd to me most worthy to be consider'd in them; and further, to give those Rules which I have hitherto follow'd in Building, and which I still follow, to the end that they who shall read my Books, may be able to practise whatever they find useful in them, and to supply what is wanting, as many such things there may be. Thus Men, by degrees, will learn to lay aside the strange Abuses, the barbarous Inventions, the superfluous Expences, and (what imports them more than all the rest) to avoid the various and continual Ruins which have happened in several Buildings. I have moreover apply'd my self to this Undertaking with the greater Alacrity, because at this time I see abundance of others become studious of this Profession, many of whom are worthily and honourably mentioned in the Books of that rare Painter and Architect, *George Vasari Aretino*; which makes me hope that the way of Building will be reduced to general Utility, and very soon arrive to that pitch of Perfection, which, in all Arts, is so much desired. We appear to come very near it, in this part of *Italy*, seeing that not only in *Venice* (where all the Polite Arts do flourish, and which City alone affords an Example of the Grandeur and Magnificence of the *Romans*) there begin to appear Fabricks of good Taste, since that most celebrated Carver and Architect, *Giacomo Sansovino*, first introduced the true manner, as may be seen, not to mention his fine Performances in the new Palace of *Procuracy*, which is perhaps the most sumptuous and the most beautiful Edifice that has been erected since the time of the Antients; but also in several other Places of less renown, and particularly in the City of *Vicenza*, which tho of no great Extent, yet is full of very refined Genius's, and sufficiently abounds in Riches. There I had first occasion to put that in practice which I now publish for the common Good. As here may be seen divers fine Edifices, and many Gentlemen who are most studious of this Art, and who, whether their Blood or their Learning be consider'd, are not unworthy to be number'd among the most Illustrious, such as *John George Trissino*, the Ornament of our Age; the Counts *Marc Antony* and *Adrian de Thieni*, Brothers; *Antenor Pagello*, and many others; who having past to another Life, have eternized their Memory by the curious and rich Buildings they have left behind them. There are now living in the same City *Fabio Monza*, a knowing Person in many Subjects; *Elio de Belli*,



P R E F A C E.

*Belli*, the Son of *Valerio*, famous for Painting in Brooch \* and Cutting of Crystal; *Antony Francis Oliviera*, who besides the Knowledge of many Sciences, is an excellent Architect and Poet, as he has demonstrated in his Heroick Poem, Entitled *Aleman*, and by the House that he built at *Boschi di Nanto*, a place of the *Vicentin*; and finally, to pass over several others that might reasonably lay a claim to the same Rank, *Valerio Barbarano*, a most diligent Observer of whatever any ways belongs to our Profession. But to return to our Subject, having designed to publish to the World the Fruits of those Labours, which, with the greatest Diligence from my Youth upwards, I have been collecting; as also the Searching and Measuring of those Antient Buildings that any ways came to my Knowledge; and upon this occasion briefly to treat of Architecture in the most orderly and distinct method possible; I thought it most convenient to begin with the Houses of private Persons, as thinking it reasonable to believe, that these in time gave rise to publick Edifices, it being very probable that Men lived first asunder by themselves; and perceiving afterwards that they needed the Aid of others to make them happy, (if indeed there be any Happiness here) they naturally loved and desired the Company of other Men, whence, out of many Houses they made Villages, and out of many Villages Cities, in which they built publick Places and Edifices. Besides, as of all the Parts of Architecture, none is more necessary than this for Mankind, nor any more frequently practised by them, I shall therefore in the first place treat of private Houses, and next of publick Edifices. I shall briefly write of Streets, Bridges, publick Places, Prisons, *Basiliche*, or Courts of Justice; *Xisti* and *Palestre* (which were Places design'd for bodily Exercises) of Temples, Theatres and Amphitheatres, of Arches, of publick Baths, of Aqueducts, and last of all, the manner of fortifying Cities and Havens. In all these I shall avoid superfluity of Words, and will barely remark such things as shall appear to me most necessary, using those Terms and Names that are in common use with our present Architects. And because I dare make no other boasts of my self than what flow merely from the long and earnest Study, great Diligence, strong Passion and Affection wherewith I have pursued the Knowledge and Practice of what I now offer to the World; if it pleases God that I have not laboured in vain, I shall be thankful to his Goodness for it with all my Heart; acknowledging my self obliged to those, who, from their fine Inventions and Experiments, have left us the Precepts of this Art; since thereby they have opened a more easy and expeditious way to the making of new Discoveries, and that

\* Pictures in one Colour are so call'd.

by



P R E F A C E.

by their means (which we ought thankfully to acknowledge) we are come to the Knowledge of many things, which otherwise had perhaps remain'd still unknown. This first part shall be divided into two Books; the first will contain the Preparation of the Materials, and being prepared, how, and in what form, to employ them from the Foundations up to the Roof; and here likewise will be contained those general Rules which are to be observed in all Edifices, as well publick as private. In the second I shall treat of the different Qualities of Buildings, so as to make them agreeable to Persons of different Conditions: First of Houses in the City, and next of the most convenient Situations for Country-houses, and how they ought to be most commodiously disposed. But since in this Kind, we have but very few antient Originals, by which to be governed, I shall lay before you the Plans of several Houses I have built for Gentlemen in divers places; and lastly, the Antients Designs of Country-houses, with those parts in them that were most remarkable, in the manner that *Vitruvius* has taught us, and that they themselves built them.



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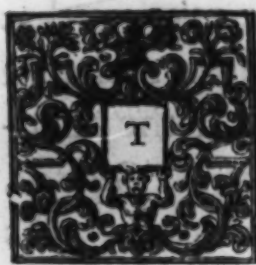
CHAP.



THE  
FIRST BOOK.

CHAP. I.

*Of Things to be consider'd and provided, before one  
begins to Build.*



THE first thing that requires our consideration, when we are about Building, is the Plan, and the Upright of the Edifice we propose to erect. Three things, according to *Vitruvius*, are chiefly to be consider'd, without which a Building cannot be of any value. These are *Conveniency*, *Solidity*, and *Beauty*. For no Edifice can be allow'd to be perfect, if it be commodious and not durable; or, if being durable, it be subject to many inconveniencies; or, if having both solidity and conveniency, it has no beauty nor uniformity.

An Edifice may be reckon'd Commodious, when every part of it has its proper place and situation, in respect to its dignity and uses; having neither more nor less than these require: as when the Halls, Rooms, Closets, Galleries, Cellars, Garrets, &c. are fitly dispos'd, and in their proper places. The Solidity of an Edifice depends upon the care of erecting the Walls very *plum*, and thicker below than above, with good and stout Foundations: taking care that the *pillars* above be exactly perpendicular over the *pillars* below, and that all the openings, as Doors and Windows, be one above the other, so that the solid be upon the solid, and the void upon the void. As for the beauty of an Edifice, it consists in an exact Proportion of the parts within themselves, and of each part with the whole: for a fine Building ought to appear as an-entire and perfect body, wherein every member agrees with its fellow, and each so well with the whole, that it may seem absolutely necessary to the being of the same.

These things consider'd upon the Draught, or Model, the Charges of the whole are to be diligently computed, and all requisite



quisite materials timely provided, that nothing be deficient, or hinder the finishing of the work; it being no little satisfaction and praise to the Builder, nor a small advantage to the work it self, if it is compleated with due expedition, and in all its parts together: because, if all the Walls are rais'd at the same time, they will settle equally every where, and there will be none of those Chinks or Clefts, which are so common in the buildings finish'd at several times. Therefore having made choice of the most skilful Artists that can be had (to the end, that, by their advice, the Work may be better carried on) Bricks, Stones, Lime, Sand, Timber, and Metals, are to be provided in a sufficient quantity; concerning which provision, I intend to lay down some very useful Observations: as for example; for framing the Floors of the Halls and Chambers, so many Joysts are to be provided for, as when fram'd, there may remain between them the space of a Joyst and a half. Likewise concerning Stones, notice ought to be taken, that the *Jambs* of the Doors and Windows are not to be bigger than a fifth, and not less than a sixth part of the opening. And if the building is to be enriched with *Columns*, or *Pilasters*, the *Bases*, *Capitels*, and *Entablature*, may be made of Stone, and the rest of Bricks. As for the Walls, they ought to diminish according as they rise. These Considerations rightly apply'd, will help to lessen the Expences of the work. But because I am to discourse about all these things in particular, 'twill be sufficient to have given here this general hint as a rough draught of the whole Building. And as the quality and goodness of the materials, are as much to be inquir'd into, as the quantity of them, the experience of those who have built before, will be a great help to determine what is fit and expedient to be done. And tho *Vitruvius*, *Leo Baptista Alberti*, and other excellent Masters, have given us their opinions of the choice of Materials; yet that nothing be wanting in this Book, I shall subjoin my own Observations to the most necessary of theirs.

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## CHAP. II.

### Of TIMBER.

**T**imber, according to *Vitruvius* (Book 2. Chap. 9.) ought to be cut down in autumn, and during the winter; because the Strength, which, in the spring and summer, was dispers'd through the leaves and fruits of the trees, is then gather'd into the trunk



trunk and boughs: and if it is fell'd in the wane of the Moon, then it is free from a certain moisture which is apt to breed worms, and to rot the wood. Timber should be cut at first only to the pith, and so left until it be dry, that the rotting moisture we have spoken of, may the easier drop down and pass away. Being cut, it must be laid under shelter from Sun and Rain, chiefly that sort of wood which grows of it self, that is, without being sow'd or planted, for fear it should chop: and in order to make it grow dry equally, it will be very proper to daub it over with Cow-dung. It should not be drawn home through the Dew, but rather in the afternoon; neither ought it to be wrought, if it is wet or too dry, because it would make it warp and occasion clumsy work: nor will it in less than three Years be dry enough to use it in Planks, Doors, and Window Frames. 'Tis expedient for those who undertake a building, if they want skill in this, to inform themselves from men who are thoroughly acquainted with the nature of Timber, that they may judge which is fit for such or such uses, and which not. *Vitruvius*, in the above quoted Chapter, gives good instructions on that head; besides many more, who have written at large on the same Subject.

### CHAP. III.

#### Of STONES.

**T**HERE are two sorts of Stones, natural and artificial. The natural are dug out of the Quarry, and either fit to make Lime (of which we shall speak more at large hereafter) or to be employ'd in making the Walls of Buildings; and of these last there are several sorts. Some extremely hard, as Marble, and such other living Stones, as they are call'd: some less hard, as Free-stone: others soft, as Chalk. Marble and Free-stone may be wrought as soon as dug, for they will be then more easy to work, since the longer they are out of the Quarry they become the harder. But as to softer Stone, it ought to be dug in summer, be expos'd to the Air, and not to be used within two Years; especially when the nature of the Stone is not well known, as when 'tis dug in a place from whence none has been yet taken: for being expos'd to Wind, Rain, and Frost, makes it grow hard by degrees, and more capable to bear the Weather. Another reason why it should be left so long is,



is, that those which are damag'd may be laid aside, to be used in Foundations, and other places not expos'd to fight; and that the others which are well season'd may be employ'd in the outside work, because then we may be sure, that after such a trial, they will last long.

Artificial Stones, which from their form are commonly call'd *Quadrrels*, alias *Bricks*, are made of a chalky, whitish, and soft Earth, without any mixture of Clay or Sand, which is to be carefully separated. The Earth is to be dug in autumn, and temper'd in winter, that the Bricks may be moulded in the spring: But if necessity forces to make them in winter or summer, they must be cover'd in winter with dry Sand, and in summer with Straw. When made, they require a long time to dry, and 'tis best to dry them under shelter, that both the middle and the out-side may be equally hardned, which can't be done in less than two years. They may be made bigger or smaller, according to the nature and quality of the Building, and the use to which they are design'd. The Antients made their Bricks for publick and great Buildings, larger than those for small and private ones. The bigger sort ought to have some holes left here and there, that they may dry and burn the better.



## CHAP. IV.

### Of SAND.

**T**HREE sorts of Sand are commonly used in Buildings; Pit-Sand, River-Sand, and Sea-Sand. Pit-Sand is the best of all, and is either black, white, red, or cindry; which last is a sort of Earth burnt by Fire inclos'd in the Mountains, and very common in *Tuscany*. There is also in *Terra di Lavoro*, in the Territories of *Baia* and *Cuma*, a Sand by *Vitruvius* call'd *Puteolana*, which knits together very soon in Water, and makes Mortar exceeding strong. It has been found by long experience, that of all Pit-Sand, the white is the worst; and of River-Sand, that which is in the rapid streams, and under falls of water, is the best, because it is the cleanest. The Sea-Sand is the worst of all; however it ought to be blackish and to shine like Glass: the biggest and nearest the shore is the best. Pit-Sand being the fattest makes the strongest Mortar, and is therefore to be used in Walls and



and long Vaults, but 'tis apt to crack. River-Sand is very good, for *rendring* and *rough-casting* of Walls. But the Sea-Sand, being soon wet and soon dry, and apt to melt away by reason of its Salt, is unfit to bear any weight. The best Sand in its kind of any of these sorts, is that which being handl'd and squeez'd between one's Fingers, crackles or makes a noise; or, if being put upon a white cloth, it neither stains nor dirties it. That which mingled with Water makes it slymy and muddy, is very bad: as also that which has for a long time been expos'd to the Air, Sun, Moon or Frost; because it gathers much earth and rotten humour, apt to bring forth shrubs and other wild plants, which are very prejudicial to Buildings.

## CHAP. V.

### Of LIME, and how to work it.

**L**IME-Stones are either dug out of Hills, or taken out of Rivers. Those of the Hills are good, if they are dry, free from any moisture, and naturally brittle; having no mixture of any thing in them, which after passing the Fire, might make the Stone less. The best Lime therefore is made of the hardest, heaviest and whitest Stones; and which, being burnt, remain about a third part lighter than before. There is also a sort of spongy Stone, which makes very good Lime, for *rendring* of Walls. In the Hills of *Padua*, they dig a certain rugged and scaly Stone, whose Lime is very good for works expos'd to the Weather, or in the Water, because it hardens immediately, and lasts a long time. All dug Stones are better to make Lime, than the gather'd ones; and rather those that come from a shady and moist Pit, than from a dry one; and the white better than the brown. Pebbles, especially white ones, that are gather'd in Rivers and rapid Streams, make excellent Lime; the work done with it is very white and neat, therefore 'tis commonly used in *finishing* of Walls. All Stones, of what sort soever, are sooner or slower burnt, according to the Fire given them; but generally they are burnt in 60 Hours. The Lime being taken out of the Kiln, to slack it well, water must be pour'd upon it by degrees, and at divers times, till it is well temper'd. It must be left afterwards in a shady place,

D

with-



without any mixture, only covered lightly with Sand; and when 'tis to be used, the more it is beat and mixt with the Sand, the better and stronger it will be, except that which is made with the scaly Stone of *Padua*; because it must be employ'd as soon as kiln'd, otherwise it wastes and burns away. To make good Mortar, Sand is to be mixt in such a proportion, that one part of Lime be put with three parts of Pit-Sand, and two parts only of River or Sea-Sand.

## CHAP. VI.

### Of METALS.

**T**HE Metals used in Building are Iron, Lead, and Copper. Iron is fit to make Cramps, Spikes, Nails, Hinges, Bolts, Chains, Locks, and the like works. It is no where found pure; but when the Ore is dug, 'tis purged by the Fire, which renders it liquid; and before 'tis cool, its foulness may be easily taken away. And after it is so purg'd and cool'd, it becomes soft and easy to be wrought and beat out with the Hammer; but it can't easily melt again, except it is put into a Furnace made for that purpose. If, being red hot, it is not quickly beat and work'd, it wastes away. It will be a sign of its Goodness, if being made into Bars, its veins are continu'd strait without interruption, and if the ends of the Bars are clean and without foil, or scum; because the streightness of its veins shews the Iron to be without knots, puffs or flaws: and one may judge of the middle by the ends being forg'd into square plates, or any other Figure; and if the sides are even, one may conclude that it is equally good every where, having equally endur'd the Hammer.

Lead serves to cover magnificent Palaces, Towers, Churches, and other publick Buildings: as also to make gutters and pipes to convey Water. It is likewise used in fastning all manner of Iron-work in Stone, as for example hooks to hang Gates, &c. There are three sorts thereof, white, black, and of a colour between both, call'd by some Ash-colour. The Black is so call'd, not because 'tis really black, but only because it has some black spots intermixt with its whiteness; and therefore to distinguish it from the other sort, the Antients have call'd it black. The White is the most perfect of the three. The Ash-colour is between both. Lead is dug in great natural lumps, or in small shining blackish pieces; or else



else in very thin Leaves which stick in Rocks, Marble, Pebbles, Flints, and other Stones. All sorts of Lead are easily melted, because the heat of the Fire makes it Liquid, before it is red-hot; but if 'tis put into a very hot Furnace, it loses its substance, and changes partly into Litharge, what remains being nothing but scum. Of these three sorts of Lead the black is the softest, and consequently very easily wrought, but it is heavier than the others. The white is harder and lighter; the Ash-colour is much harder than the white, but of a middle weight between both.

Copper is sometimes used to cover publick Buildings. The Antients were wont to make a sort of hook, or cramp with it, to fasten the Stones one with another: by the help of those cramps, a Building was rendered a great deal stronger and more durable. The cramps, we now most commonly use, are made of Iron, but the Antients made them oftner of Copper, because that Metal, being not subject to rust, it lasts longer. The Letters for Inscriptions, which they plac'd in the *Entablatures* of their Buildings, were also made of that Metal, of which several Authors affirm, that the hundred famous Gates of *Babylon* were also made: as likewise the two Pillars of *Hercules* eight Cubits high, in the Isle of *Gades*. The Copper is esteem'd the best, which being drawn from the Mine, and purg'd by the Fire, is red with a yellow cast, and full of Pores; for 'tis a sign of its cleanness, without any dross. Copper may be heated like Iron, and made liquid, so that it may be cast: but if the Fire is too hot, it will not endure it, but totally consume away. This Metal, altho very hard, is yet very pliable, and dilates it self into very thin Leaves. 'Tis best preserv'd when dipt in Tarr; for tho it does not rust like Iron, yet it has a kind of rust peculiar to it self called *Ver-de-grease*, especially if it touches any sharp moisture. Of this Metal mixed with Tin, Lead, and Latten (which last is another sort of Copper colour'd with *Lapis Calaminaris*) is made a Metal call'd Brass, which oftentimes Architects do use in *Bases* and *Capitels* of Pillars, Statues, Vases, and such like Ornaments. There are at *Rome* four Columns of Brass in the Church of *St. Giovanni de Laterano*, one only of which has its *Capitel*. *Augustus* had them cast out of the Brass taken from the Prows of those Men of War, that he took from *Marcus Antonius* in *Epirus*.

There



There remain also in *Rome*, to this day, four antient Gates, viz. that of the *Rotunda*, formerly the *Pantheon*: that of *St. Adriano*, which was the Temple of *Saturn*: that of *St. Cosmo* and *Damiano*, which was the Temple of *Castor* and *Pollux*, or rather of *Remus* and *Romulus*; and that of *St. Agnes*, without the Gate *Viminalis*. But the finest of all these, is that of *St. Maria Rotunda*, wherein the Antients endeavour'd to imitate by art that kind of *Corinthian* Metal, in which the natural colour of Gold did prevail: for we read that when *Corinth* was destroy'd and burnt, all the Gold, Silver, and Copper, which was in that flourishing City, being melted and mix'd together into several lumps, they were so variously temper'd, that it made the three sorts of Metal, which afterwards were call'd *Corinthian*. That, in which Silver prevailed, remain'd white; where Gold, it took the yellow; and the third was that, in which all these three Metals were of a pretty equal quantity. These three sorts of Metal have been since imitated by Workmen, in many different ways.

Hitherto having discours'd of those things which are to be consider'd and provided, before one thinks of Building, it now remains that something be said of Foundations, since the work by them must begin.



## C H A P. VII.

### *Of the Qualities of the Ground, wherein Foundations are to be laid.*



**W**HAT we call the Foundation of a Building is properly the *Basis* of it, that is to say, that part which is under Ground, and supports what appears above. Of all the faults therefore which are committed in Building, those about the Foundations are the most prejudicial to it; because they indanger the whole Fabrick, and they can't be rectify'd without great difficulty and expence. The Architect therefore ought to be extraordinary nice in the setting of the Foundations, since in some places it is solid enough from the nature of the Soil, and in other places it is necessary to be made so by Art.

A natural Foundation is, when the Soil is rocky, or of a soft sandy Stone, or Gravel; for then without digging, or other helps of art, the earth it self is an excellent Foundation, and capable to



to bear the greatest Building both in Land and Water. But if nature affords not a Foundation, it must be compass'd by Art; and then the place to build upon, is either a solid Earth, or Clay, or 'tis Sand, or soft and moist Ground, or marshy Land. If the Earth is firm and solid, one may dig so far as to a discreet Architect may seem requisite for the quality of the Building, and the soundness of the Earth it self. If no Cellars, or other underground Offices are intended, a sixth part of the height of the Building may be a sufficient depth. One may judge of the firmness of the Earth by digging of Wells, Cisterns, and such like. 'Tis also known by Herbs growing upon the place, as if such do usually grow only in firm and solid Ground; or if a great weight be thrown thereon, it neither resounds nor shakes; and from the report of a Drum, being set on the Ground, and if lightly touch'd, it does not sound again; or if Water put in a Vessel does not shake. The neighbouring places will also help one to know the firmness of the Earth. But if the place be sandy or gravelly, it is to be consider'd whether it be on Land or in Water; because if it be on Land, it will be sufficient to observe what has been already said concerning solid Ground: but if you are to build in Water, the Sand, or Gravel is altogether useless; because the Water, by its continual stream and flood, changes its Bed. Therefore one must dig till a solid bottom is found; but if that can't be done, or is judg'd to be difficult, then dig somewhat in the Sand, or Gravel, and so drive Piles whose ends may reach to the sound and good Earth, and upon those Piles cover'd with Planks one may venture to build. But if there is a necessity to build upon a loose or made Ground, then one must dig as far as the solid and sound Earth, and therein also in proportion to the bigness of the Walls, and the greatness of the Building.

The solid ground fit to build upon, is of divers sorts; for, as *Leo Baptista Alberti* well remarks, it is in some places so hard as scarce to be open'd with the proper Tools, nay sometimes as hard as Iron it self: in other places blackish, in some places whitish, which is accounted the weakest; in some places like Chalk, in others Sandy. Of all these the best is that which is cut with more difficulty, or if being wet, it does not dissolve into dirt.

No Foundation ought to be dug on the Water-side, before one has carefully founded the bottom. If it is marshy and soft, then it



ought to be strengthen'd with Piles, whose length must be an eighth part of the height of the Wall, and thick by a twelfth part of their length. The Piles must be drove in as close as possible, and ramm'd with blows rather quick than heavy; so that the Earth may the better consolidate and fasten. Not only the out-Walls are to be supported in that manner, but also the inner and cross-Walls; for if the Foundation for the inward-Walls differ from those without, then laying the Girders along one by the other, and the Joysts cross upon them, it may happen that the inward Walls shall sink, when at the same time, the out-Walls being upon Piles, shall not stir: both of them consequently will crack, and cause the ruin of the whole. Therefore the Expence of the Piles being less to be fear'd than the falling of the Building; the Piles must not be spar'd, but distributed according to the proportion of the Walls, those in the middle being plac'd somewhat thinner than those without.



## C H A P. VIII.

### Of FOUNDATIONS.

**T**HE Foundations ought to be twice as thick as the Walls to be rais'd upon them, so that both the quality of the Earth and the greatness of the Building are to be regarded, making the Foundation larger in a soft and loose Ground, or where there is a great weight to be supported. The *plane* of the Trench must be level, so that the weight may press equally every where; and not inclining more on one side than the other, which occasions the cleaving of the Walls. For this reason the Antients used to pave the *plane* with *Tivertine*, but we most commonly use to lay Planks or Beams to build on. The Foundations ought to be made sloping, that is to say, to diminish as they rise; but yet in such a manner, that the middle of the Wall above may fall *plum* with the middle of the lowest part; which must be also observ'd in the diminution of Walls above Ground, because by that means the Building becomes much stronger, than by making the diminution any other way.

Sometimes to avoid Charges (especially in moorish Grounds, where there is a necessity to use Piles) Foundations are arch'd like a Bridge, and the Walls are built upon those Arches. In great  
Build-



Buildings 'tis very proper to make vents through the body of the Walls from the Foundations to the Roof, because they let forth the Winds and other Vapours, which are very prejudicial to Buildings; they lessen the Charges, and are of no small conveniency, especially when there is occasion for winding-stairs from the bottom to the top.

## CHAP. IX.

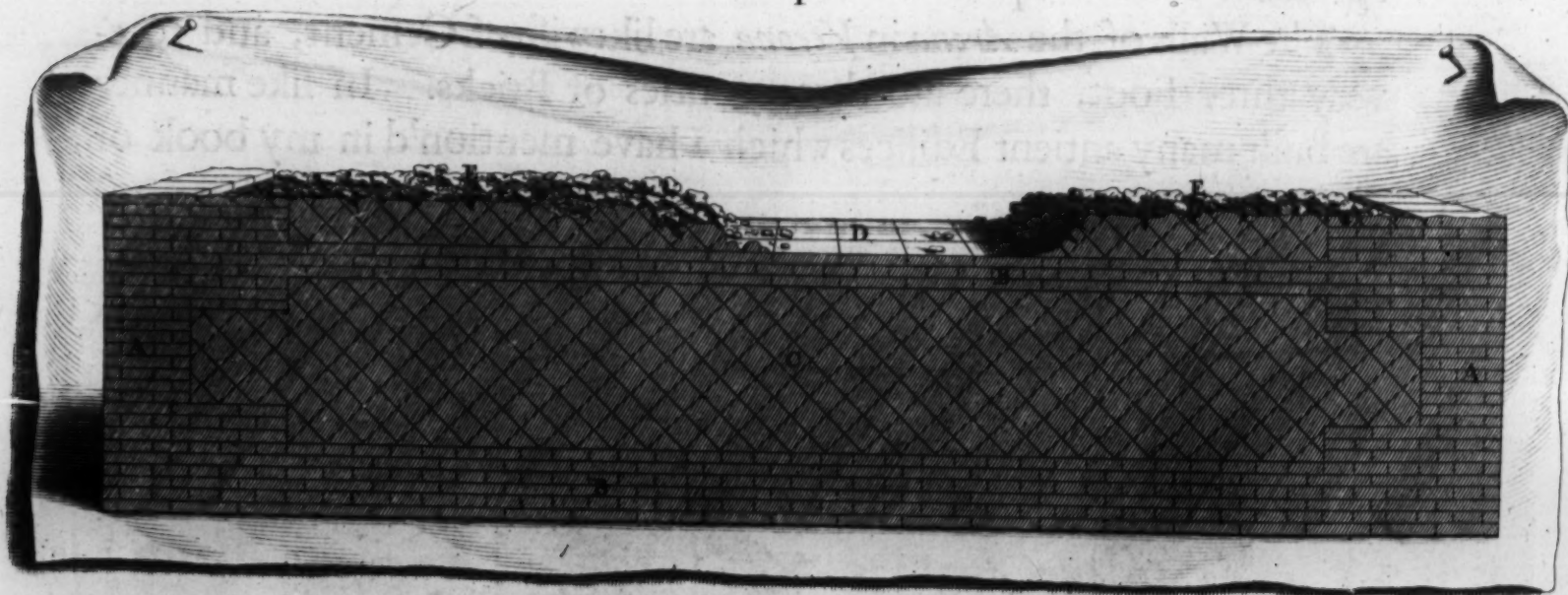
### *Of the several sorts of Walls.*



THE Foundations being laid, it remains that we treat of the Elevation of the Walls above ground. The Antients had six sorts of Walls, one of which call'd *Reticulata*, or *Net-work*: another of *Quadrels*, or Bricks: the third of *Cement*, which is a mixture of Flints, or Pebbles and Earth roughly laid with, or without Morter: the fourth made of various Stones, and call'd *Rustick*: the fifth of squar'd Stones: the sixth called *Rimpiuta*, or *Coffer-work*. The *Net*, or *Chequer-work* is no more in use at this time; but because *Vitruvius* relates that it was common in his time, I would not omit to give here the design of it.

The Corners of the Building, or Wall, were made of Bricks; and between every two Foot and a half, three courses of Bricks were laid as a band to the whole work.

A. Corners of Bricks.  
B. Courses of Bricks which bind the whole Wall.  
C. The Net or Chequer-work.  
D. Courses of Bricks, through the thickness of the Wall.  
E. The inward part of the Wall made of Cement.



M. P. Gault. Sculp.

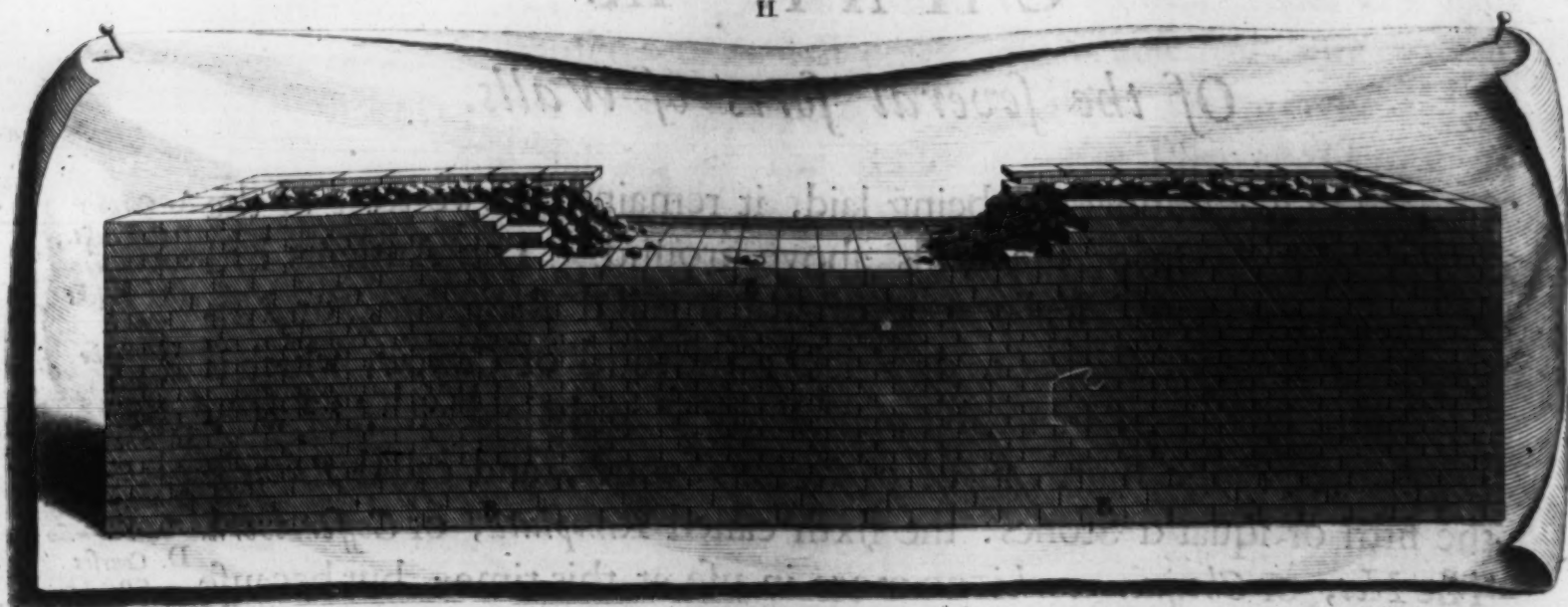
Brick-walls,



Brick-walls, both those which inclose a City, and those designed for a great Edifice, must be fac'd on both sides with Bricks, and the middle fill'd up with Cement, ramm'd together with Brick-bats: and to every three Foot in height, there must be three courses of Bricks of the biggest sort, through the whole breadth of the Wall; the first course being laid the lesser part out-side; the second the length laid side-way; the third as the first; and so forth. Of this sort are the Walls of the *Rotunda* in *Rome*, and the Bath of *Dioclesian*, and most of all the other antient Buildings.

E. Courses of Bricks which bind the whole Wall.

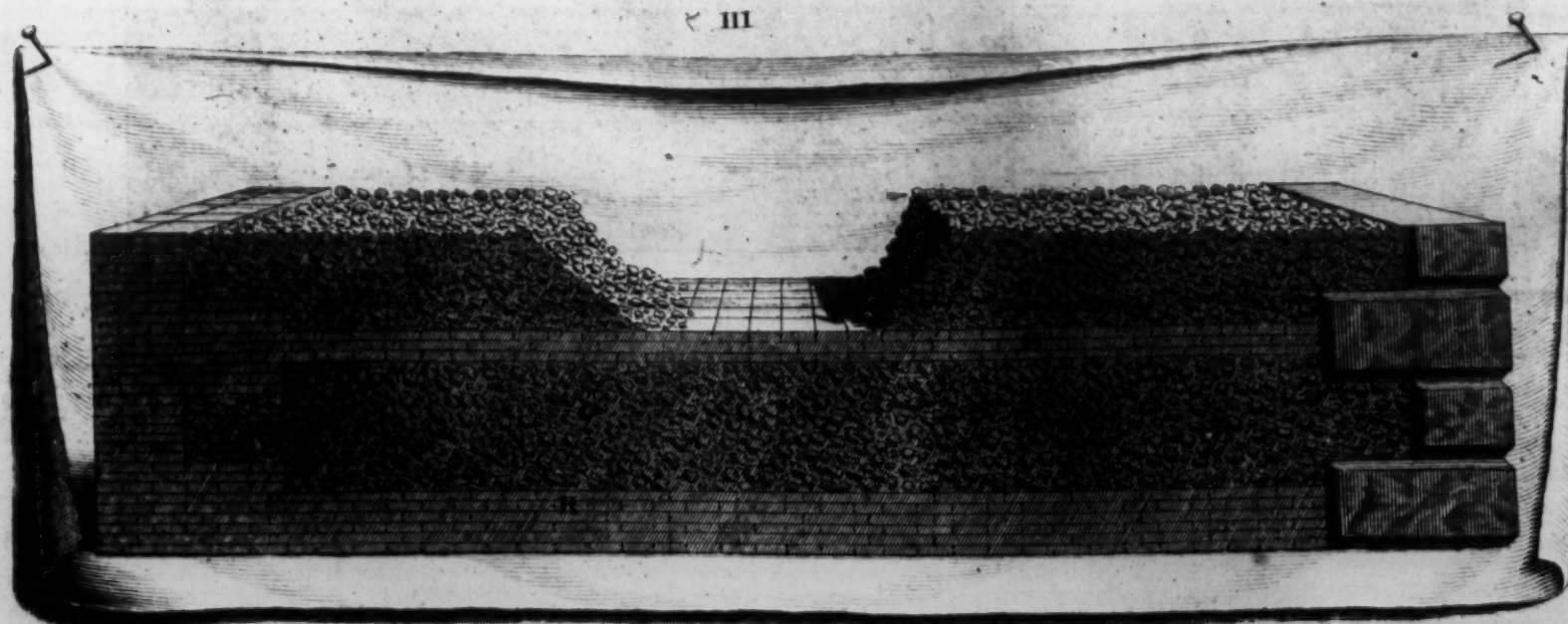
F. The middle part of the Wall made of Cement.



G. Cement, or River-pebbles.  
H. Courses of Bricks which bind the whole Wall.

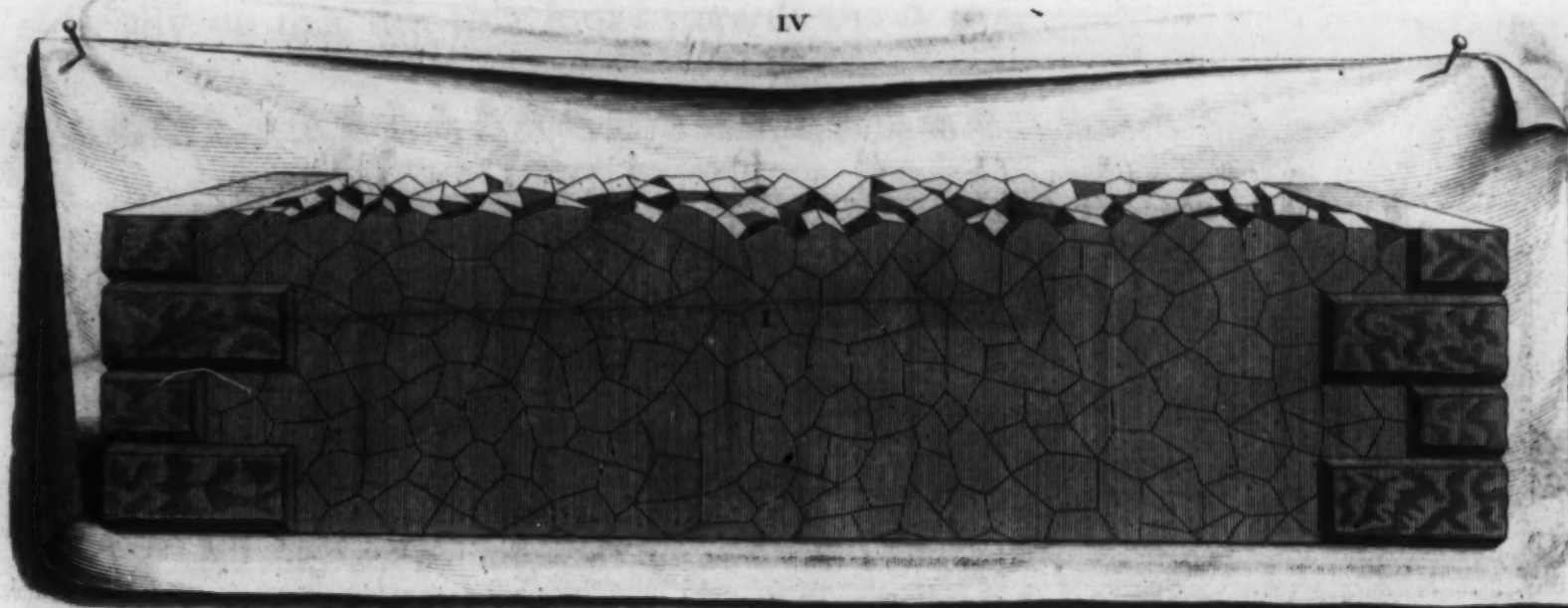
The walls of *Cement* must be order'd in such a manner, that to every two Foot at least, there be three courses of Bricks dispos'd as before. The Walls of *Turin* in *Piemont*, have been made after that manner, that is of large River-pebbles split in the middle, which, being laid with the split-side outwards, make very smooth work and agreeable to look upon.

The Walls of the *Arena* in *Verona* are likewise of *Cement*, and to every three Foot, there are three courses of Bricks. In like manner are built many antient Edifices which I have mention'd in my book of *Antiquities*.





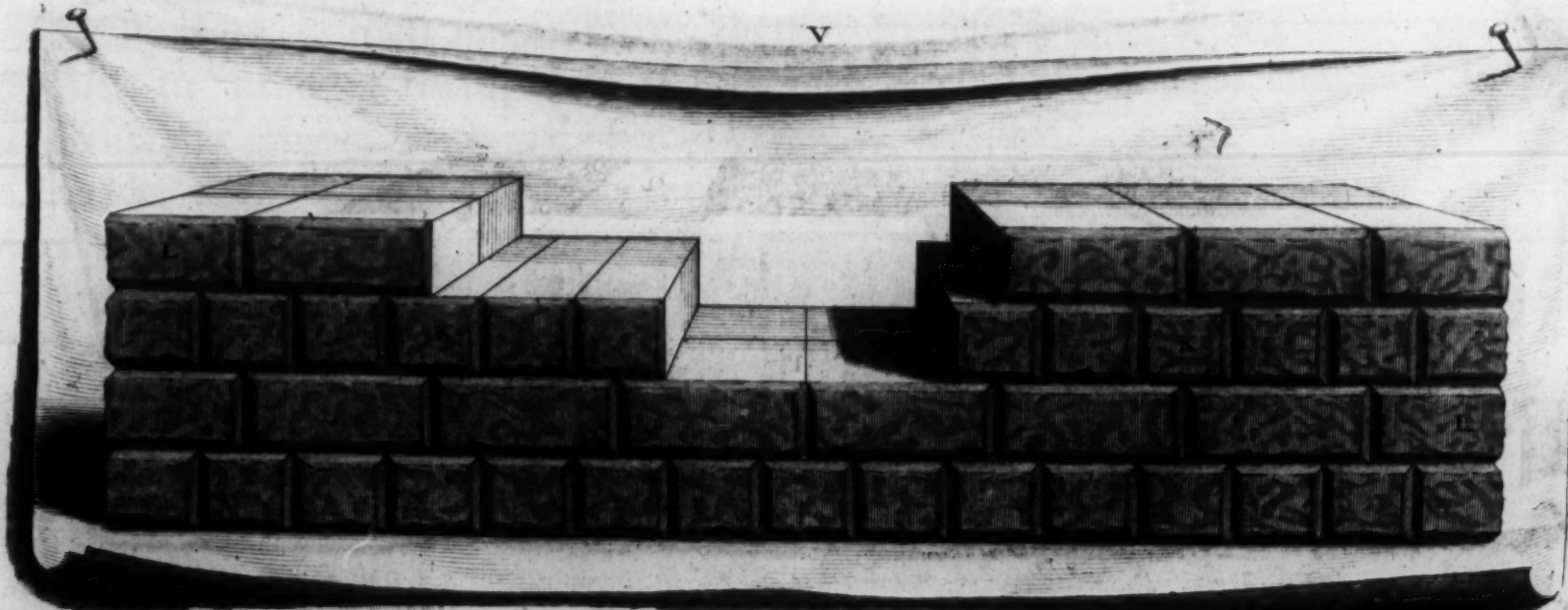
The Walls made of uncertain, or irregular Stones of different sorts, were call'd *Rustick*, by reason of the various shapes of the Stones. In the building of these Walls they made use of a leaden Rule, which being bended according to the place where the Stone was to be laid, shew'd how it was to be form'd and squar'd; so that without any more ado, the Stone was fix'd in its design'd place. Of this sort may be seen the Walls at *Preneſte*, and the antient Streets were paved in this manner.



Of this kind may be call'd the antient Walls of Naples, which are made of two rows of five Stones four Foot thick, and six Foot distant the one from the other: these two rows of Stones are bound together with a third row of five Stones four Foot thick, and six Foot distant the one from the other.

Walls of Free-stones may be seen at *Rome* in that place, where were formerly the *Piazza* and the Temple of *Augustus*, in which the lesser Stones were inclos'd with some Courses of greater ones.

K. Courses of lesser Stones.  
L. Courses of larger Stones.

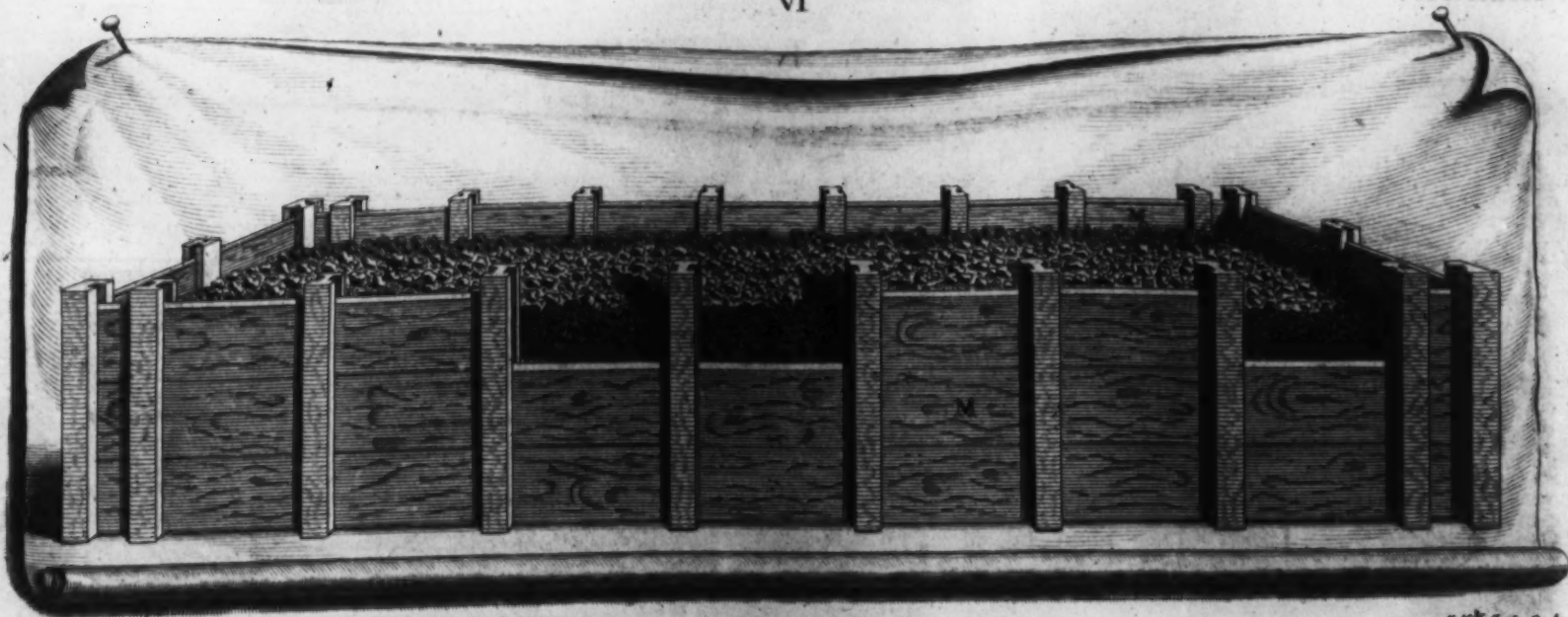




M. Planks  
put edge-  
way.  
N. The in-  
ward part  
of the Wall.  
O. The Face  
of the Wall,  
the Planks  
being taken  
away.

The Antients used to make Walls called *Reimpiuta*, that is fill'd up with ragged Stones, which is also call'd *Coffer-work*, taking Planks and placing them edge-way in two rows distant one from another, to the thickness they intended to give the Wall; filling the space between those two rows of Planks with *Cement*, Stones of all sorts, Earth and Mortar mingled together: and so they went on from Course to Course. Such Walls are seen at *Sirmion* upon the Lake *di Guarda*.

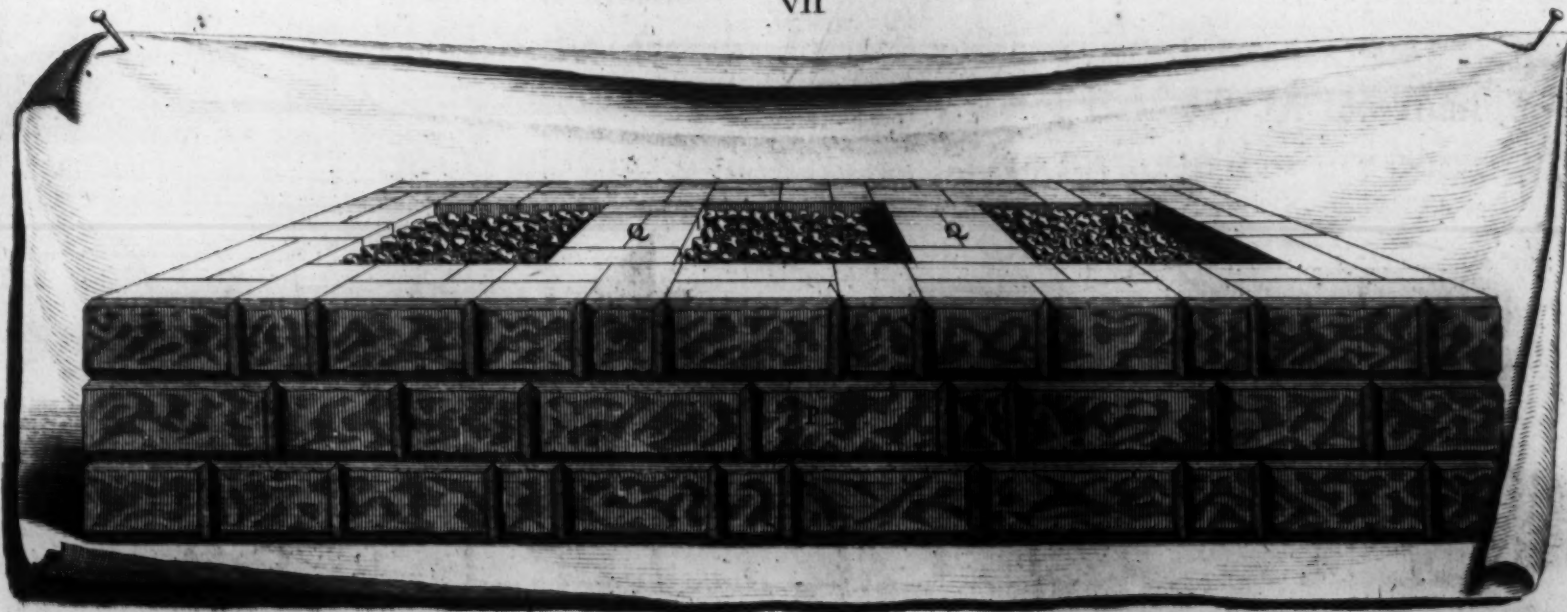
VI



P. The out-  
ward-rows  
of Stones.  
Q. The cross-  
ing-rows.  
R. Coffers  
filled with  
Stones and  
Earth.

Of this kind may be call'd the antient Walls of *Naples*, which are made of two rows of free Stones four Foot thick, and six Foot distant the one from the other: these two rows of Stones are bound together with other crossing-rows, so the Space, or *Coffers*, which were between the crossing-rows and the out-rows of Stones, being four foot square, were fill'd up with Stones and Earth.

VII



These,



These in a word, are all the forms which the Antients gave to their Walls, the Foot-steps whereof are yet to be seen: from whence one may easily conclude, that Walls of what sort soever they be, ought to have some chief courses of a larger and harder matter than the rest, to serve like Sinews to hold fast all the other parts together, which chiefly is to be observ'd, when Walls are made of Bricks: to the end that, if in process of time the Walls should happen to sink, or give more on one side than the other, the rest might not become likewise ruinous: as has happen'd in many Walls, especially on that side that looks towards the North.



## CHAP. X.

*Of the Method which the Antients did practise, in erecting their Stone Buildings.*

**W**HEREAS it happens sometimes that Buildings are made, the whole, or a good part of Marble, or of some other great Stones, I think it very proper here to explain what the Antients did on such occasions, because it is to be observ'd in their works, that they were so nice in the joining of their Stones together, that sometimes the joints are difficult to be perceiv'd: which every one ought carefully to consider, who besides the Beauty, desires also the solidity and lastingness of the work. As far as I can understand, they first squar'd and wrought those sides of the Stones, which were to be laid one upon the other, leaving the other sides rough, so that the edges of the Stones being thicker, men might move them with less danger of breaking, or bruising them, than if they had been squar'd, and consequently thinner, on all sides before. In this manner they made their Stone Buildings *rustick*, or rather rough, till they had quite erected them to the very top; after which they went on working and polishing that face of the Stone which was expos'd to the sight. It is true that the *Roses* which are between the *Modillions*, and such other like Ornaments of the *Cornice*, which could not conveniently be work'd after the fixing of the Stones, were made before while they lay on the Earth. This may be easily observ'd in several antient Edifices, where many Stones remain rough and unpolish'd, just as they were laid. The

Arch



Arch near the old Castle in *Verona*, and all the other Arches and Buildings there, were done in the same manner; as it appears by the very marks of the Tools, which shew how the Stones were wrought. The *Trajan* and *Antonin* Columns at *Rome* were also wrought in that manner; otherwise they could never have so exactly join'd the Stones, as to meet so closely cross the Heads and other parts of the Figures. The same I say of other Arches that are to be seen. When they went about some great piece of Building, as the *Arena* in *Verona*, the Amphitheatre of *Pola*, and the like, to save the excessive charge and length of time, which the finishing of such Works would have requir'd, they wrought only the *Imposts* of the Arches, the *Capitels*, and *Cornices*; and left the rest *rustick*, having only regard to the beauty of the whole Fabrick. But in their Temples, or rather sumptuous Buildings, which requir'd more Curiosity, they spar'd no pains nor cost in the working them; polishing and glazing even to the very *Channelling* or *Flutes* of the Columns, with great exactness. Therefore in my judgment, Brick-walls ought not to be *rusticated*, much less the Mantles of Chimneys, which require the most curious Workmanship: for besides the misapplying of that sort of work, it would look as if one had a mind to make a thing, which naturally ought to be entire, appear to be divided and made of several pieces. But indeed, according to the greatness and quality of the Building, it may be made either *rustick*, or after a more elegant manner: for what the Antients did with Reason, when they were necessitated by the greatness of their Edifices; we ought not to imitate, when smaller Buildings require neatness.



## CHAP. XI.

### *Of the Diminution of the Walls, and the parts of the same.*



It is to be observ'd, in the erecting of the Walls, that they ought to diminish proportionably, as they are rais'd and grow higher. That part therefore which appears above Ground, is to be one half thinner than the Foundations; and the second Story half a Brick thinner than the first Story, and so successively to the top; but still with such discretion, that the upper-most part of all be not too weak. The middle of the upmost Wall ought to be



be perpendicular with the middle of the nethermost, so that the whole Wall becomes of a *pyramidal* form. But if there is a necessity to make one of the two superficieses of the Walls *plum*, it must be inwardly; because the Floors, the Vaults, the cross-Walls, and other supporters of the Building, will keep the out-Walls from falling, or giving way. The discharg'd parts of the outside may be cover'd with a *Fascia*, or *Cornice*, incompassing the whole Building, which will be both an Ornament and a Binding to the whole Fabrick.

The Angles, being common to two Faces, in order to keep them upright and fast together, must be made very strong, and held with long and hard Stones as it were with Arms: wherefore the Windows, and other like openings, ought to be made far from the Angles; or at least so much space must be left between them and the said openings, as is the breadth of any of the openings.

Having spoken hitherto of mere Walls, 'tis now time we should pass to their Ornaments, the greatest of all which are the *Columns*, when they are fitly plac'd, and in their due proportion with the whole Fabrick.



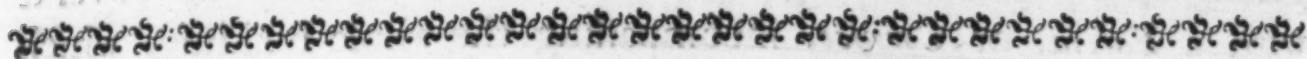
## CHAP. XII.

### *Of the five Orders used by the Antients.*

**T**HE antient Architects have made use of five different Orders call'd by them, the *Tuscan*, *Dorick*, *Ionick*, *Corinthian*, and *Composite* Orders. These, in a Building ought to be dispos'd in such a manner, that the strongest be always set lowermost, as being more capable of bearing the weight, and also to give the Building a more sure Foundation: wherefore the *Dorick* must always bear the *Ionick*, the *Ionick* the *Corinthian*, and the *Corinthian* the *Composite*. The *Tuscan* is so rude and material, that it is seldom used above ground, unless it be for a *Rustick* Edifice of one Order only; or in some vast Building, as *Amphitheaters* and such like, which having many Orders one upon the other; this instead of the *Dorick*, is plac'd under the *Ionick*. But if an Architect has a mind to leave out one of them, and place (for Example) the *Corinthian* immediately over the *Dorick*, it may be done; provided always, according to the rule aforesaid, that the more solid be




the lowest. I shall set down the measures and proportions of each of these Orders, not so much according to *Vitruvius*, as to my own Observations on the antient Buildings: but first it seems necessary to explain those things which belong to all the Orders in general.



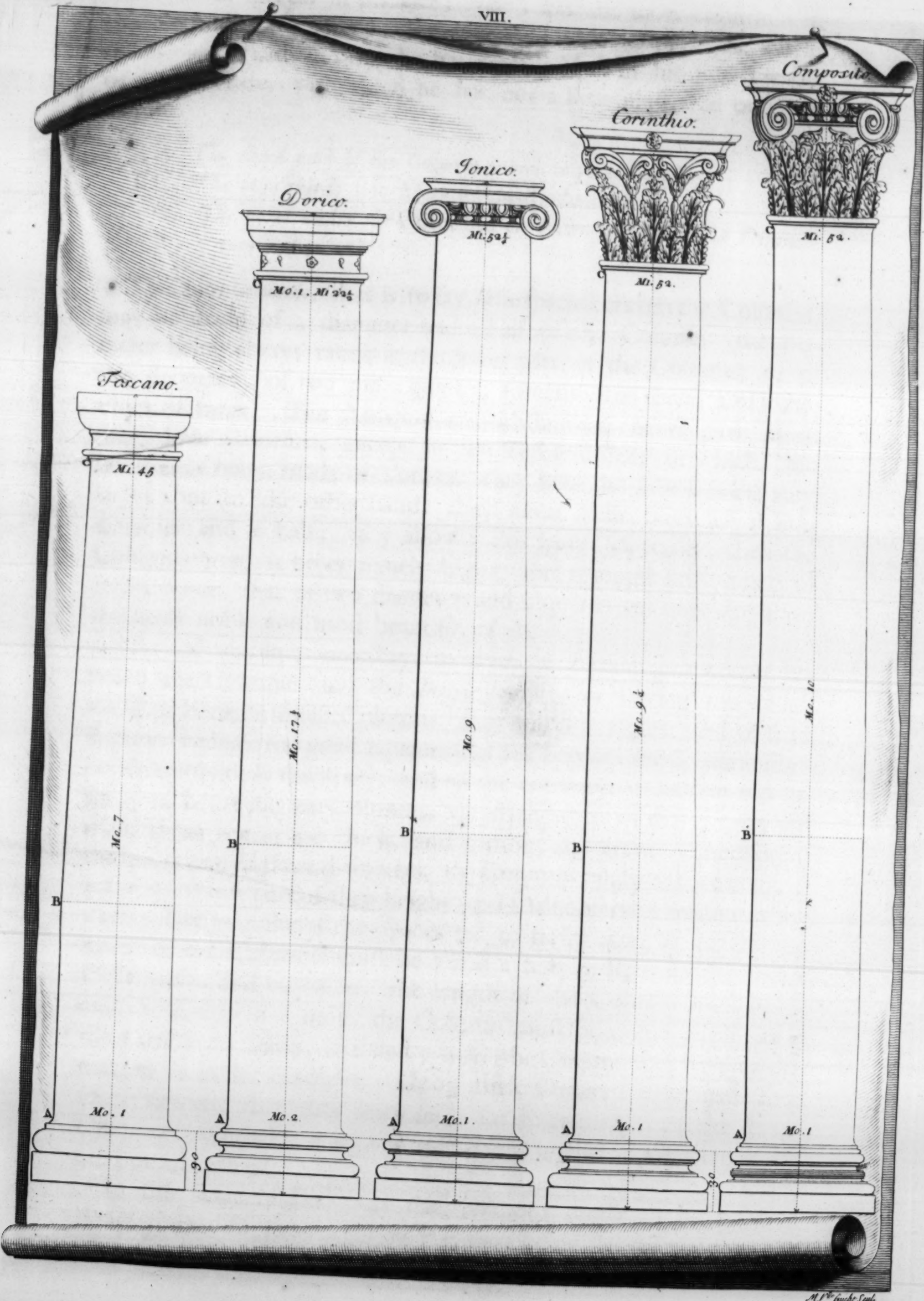
### C H A P. XIII.

*Of the swelling and diminution of Columns, of inter-Columns and Pilasters, which divide and support the Arches.*

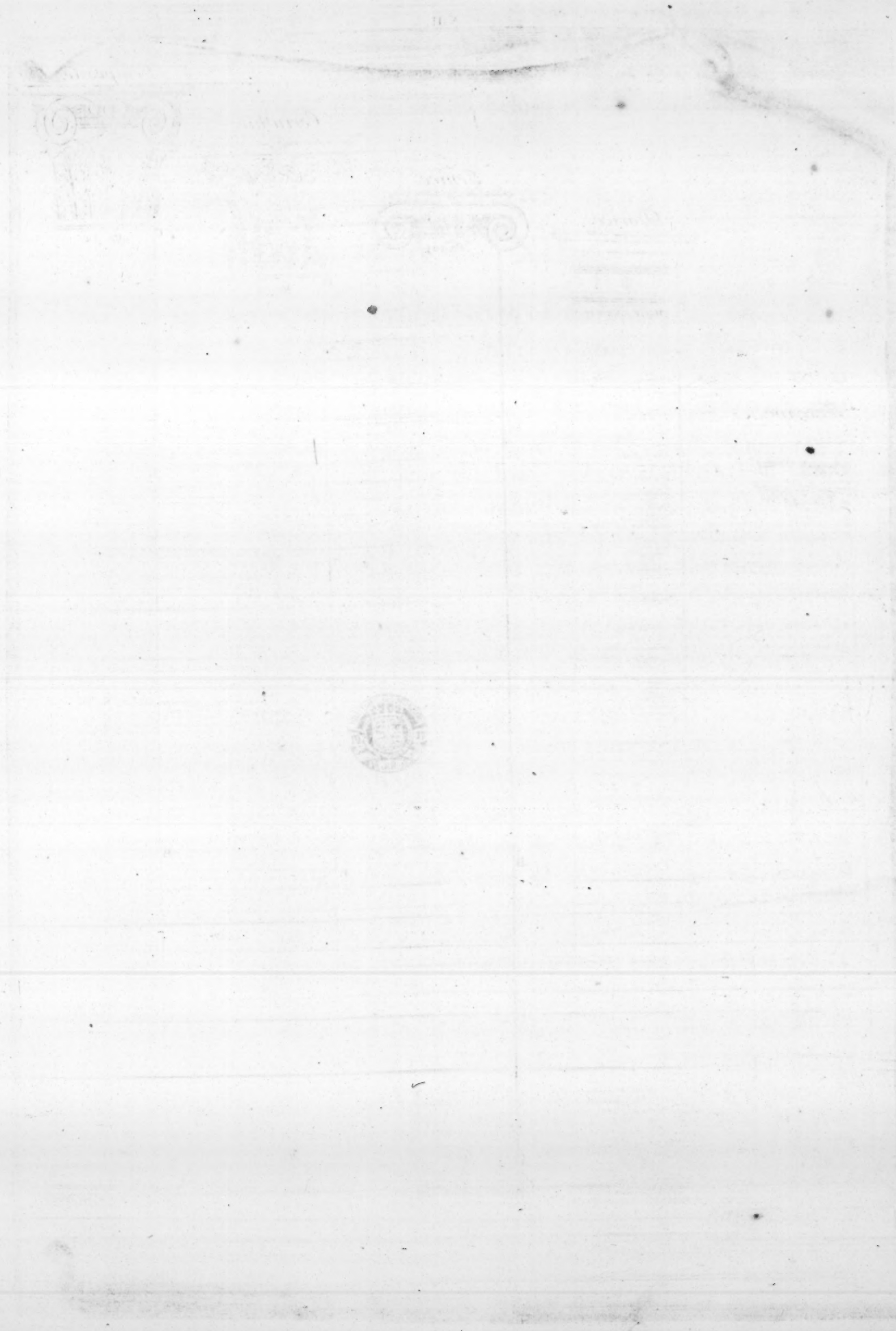
\*  THE Columns of every Order agree in this, that the upper part is to be lesser than the lower, with a little swelling about the middle. In the diminishing of them it must be observ'd, that by how much longer they are, by so much the less they must diminish, because the height has already the effect of diminishing them by the distance. Therefore if the Column is 15 Foot high, the Diameter of it, towards its *basis*, must be divided into 6 half parts, to give 5 halves of them to the diameter next to the *Capitel*. If the Column be from 15 to 20, the said diameter below shall be divided into 7 parts, 6 halves of which must be the diameter above. So likewise in those from 20 to 30 the lower diameter ought to be divided into 8 parts, and 7 of them shall be the upper diameter: and so proportionably for the highest, as *Vitruvius* teaches in his 2d Chapter of his 3d Book. But as to the method of making the *swelling* part of the Column, we have no more from that Author, but a bare promise, and therefore many have written as they thought best upon that Subject. For my part, I am wont to make the profil of the said *swelling* in this manner. I divide the *shaft* of the Column into three equal parts, drawing the lower third part perpendicular, at the extremity of which I lay a thin bending Rule, as long as the Column, or a little more; and bending that part of the Rule, till the end touches at the point of the diminution under the *Collarino*, or *Astragal*, I follow the bent of the Rule, and so the Column becomes somewhat swelled in the middle, and diminishes towards the top very handsomly. And altho I could not contrive a shorter, or easier way, or which

\* Plate VIII.











has a better success in practice; yet I was the more confirm'd in this method, since after having told *Peter Cattaneo* of it, he was so much pleas'd with it, that he has mention'd it in his fine Treatise of Architecture, with which he has not a little illustrated our Profession.

A B. *The third part of the Column which is perpendicular.*

B C. *The two thirds which are gradually diminishing.*

C. *The point under the Collarino or Astragal, where the Diminution ends.*

The *Inter-columns*, that is to say, the spaces between the Columns, may be made of a diameter and a half of the Column (the diameter being always taken at the lower part of the Column) or of two diameters, of two and a quarter, sometimes of three, and sometimes of more. The Antients notwithstanding never gave more than three diameters, except in the *Tuscan* order; in which, the *Architrave* being made of Timber, they kept the *Inter-columns* very large: but on the other hand, they never made them less than a diameter and a half; they allow'd this space, especially when the Columns were to be extremely high. But amongst such variety of *Inter-columns*, that of two diameters and a quarter was look'd upon as the most noble and most beautiful of all.

'Tis of absolute necessity, to keep a certain proportion between the Columns and the *Inter-columns*: for leaving too much vacancy between small Columns, they will lose a great deal of their Beauty, because too great a quantity of Air between them, diminishes considerably their thickness: and on the contrary, in leaving too little space between great Columns, the straightness of the vacancy will make them appear too thick, and without any grace. Therefore if the spaces exceed three diameters, the Columns ought to have in thickness the seventh part of their height, as I shall observe hereafter in the *Tuscan* Order. But if the spaces are to be of three diameters, the length of the Columns must be 7 and a half or 8, as in the *Dorick* Order: if 2 and a quarter, the length of the Column must be 9, as in the *Ionick*: if 2 only, the Column must be 9 and a half, as in the *Corinthian*: lastly, if 1 and a half, the Column shall have 10 diameters, as in the *Composite*. Upon these Orders I have made such Observations, that they may serve for Examples in all the *Inter-Columns*, which *Vitruvius* has mention'd in the 2d Chapter of his 3d Book aforesaid.

In the front of Buildings the Columns ought to be an even number, that so the middle *Inter-column* being left bigger than the rest,

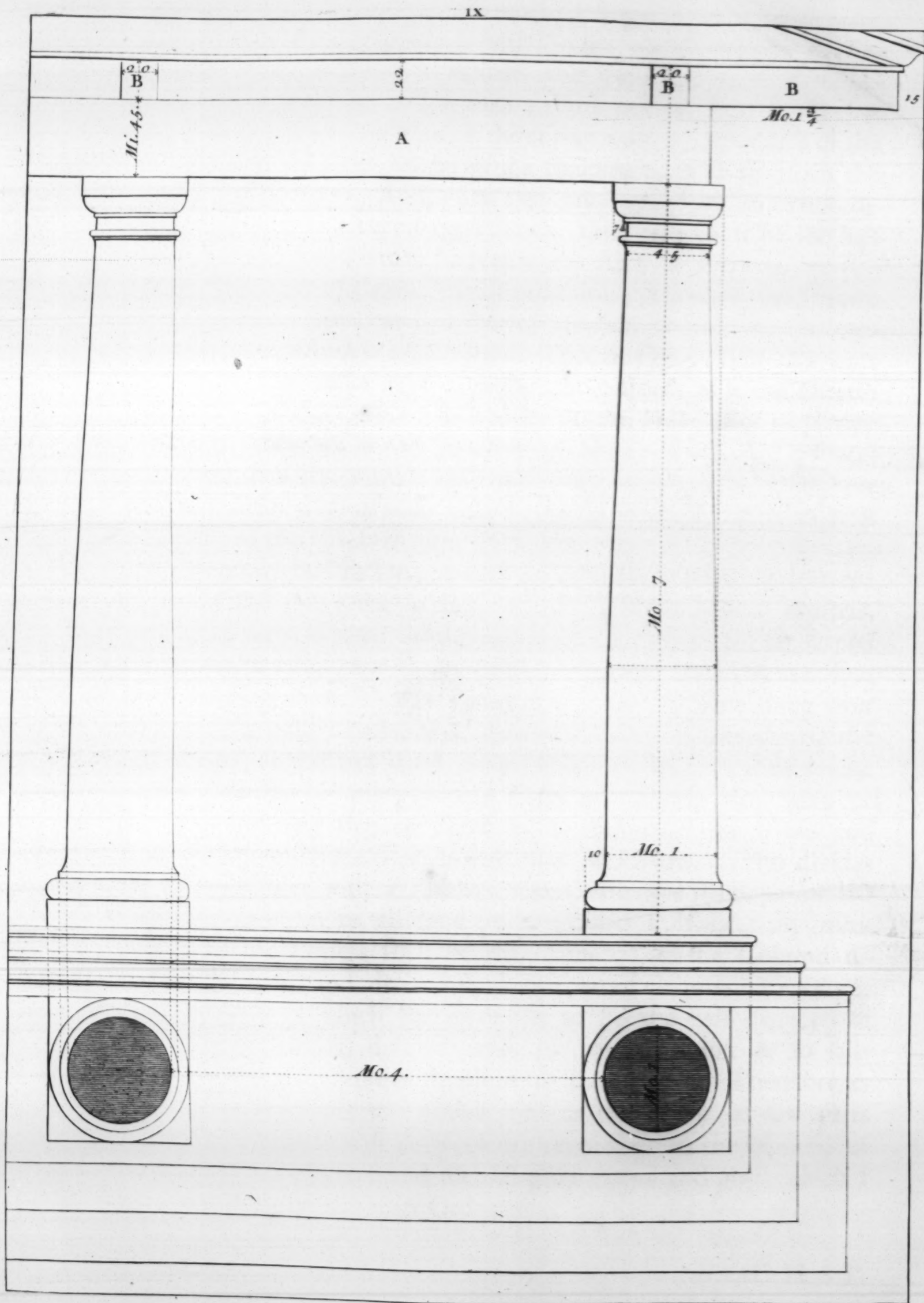


rest, the Doors and Entrys, which are usually plac'd in the middle, may be the better seen ; and thus much for single Pillars, or *Collonades*. But if Galleries are to be made with Arches and Peers, the Arches must be dispos'd in such a manner, that the *Pilasters*, or *Peers* between the Arches, be no less than a third part of the vacancy between two Pilasters: and those at the corner must be two thirds of the said vacancy, that the Angles of the Building may be so much the firmer and stronger. And when they are to support an extraordinary weight, as in a very large Fabrick, then they must be the half of the vacancy, which may be seen in the Arch of *Vicenza*, and in the Amphitheatre of *Capua*: or else two thirds, as those of the Theatre of *Marcellus* at *Rome*, and in that of *Ogubius*, which now belongs to *Ludovico de Gabrielli* a Gentleman of that City. The Antients made them sometimes as large as the whole space, as in the Theatre of *Verona*, in that part which is not on the Hill. But in private Buildings, they are not to be made less than a third of the space, nor larger than two thirds; and altho they ought to be square, yet to save charge, and to make more room to walk by, they may be made less in the Flank than in the Front: and to enrich the same, half Columns, or Pilasters, may be put in the middle, to bear the great Cornice above the Arches; which half Columns, or Pilasters, must be as large as their height requires, according to their several Orders, as it will appear in the ensuing Chapters and Designs. For understanding of these (that I may not repeat the same thing over and over) it must be observ'd, that in dividing and measuring the said Orders, I did not think fit to make use of any determinate measure peculiar to any particular City, as a *fathom*, *foot*, *span*, or the like, knowing that measures are as various as the Cities and Countries themselves: but in imitation of *Vitruvius*, who divides the *Dorick* Order with a measure taken from the diameter of the Column, common to all (and by him called a *Module*) my measure in all the Orders shall be the diameter of the Column taken at the base, and divided into 60 parts, or minutes; except in the *Dorick*, in which the *module* is to be the half diameter of the Column, and is divided into 30 parts, because it so falls more commodious in the divisions of that Order. Therefore every one may divide the *module* into as many, or as few parts as may be thought most convenient, according to the bigness, or smallness of a Building; and use the proportions and *profils* which I have here design'd for each Order.

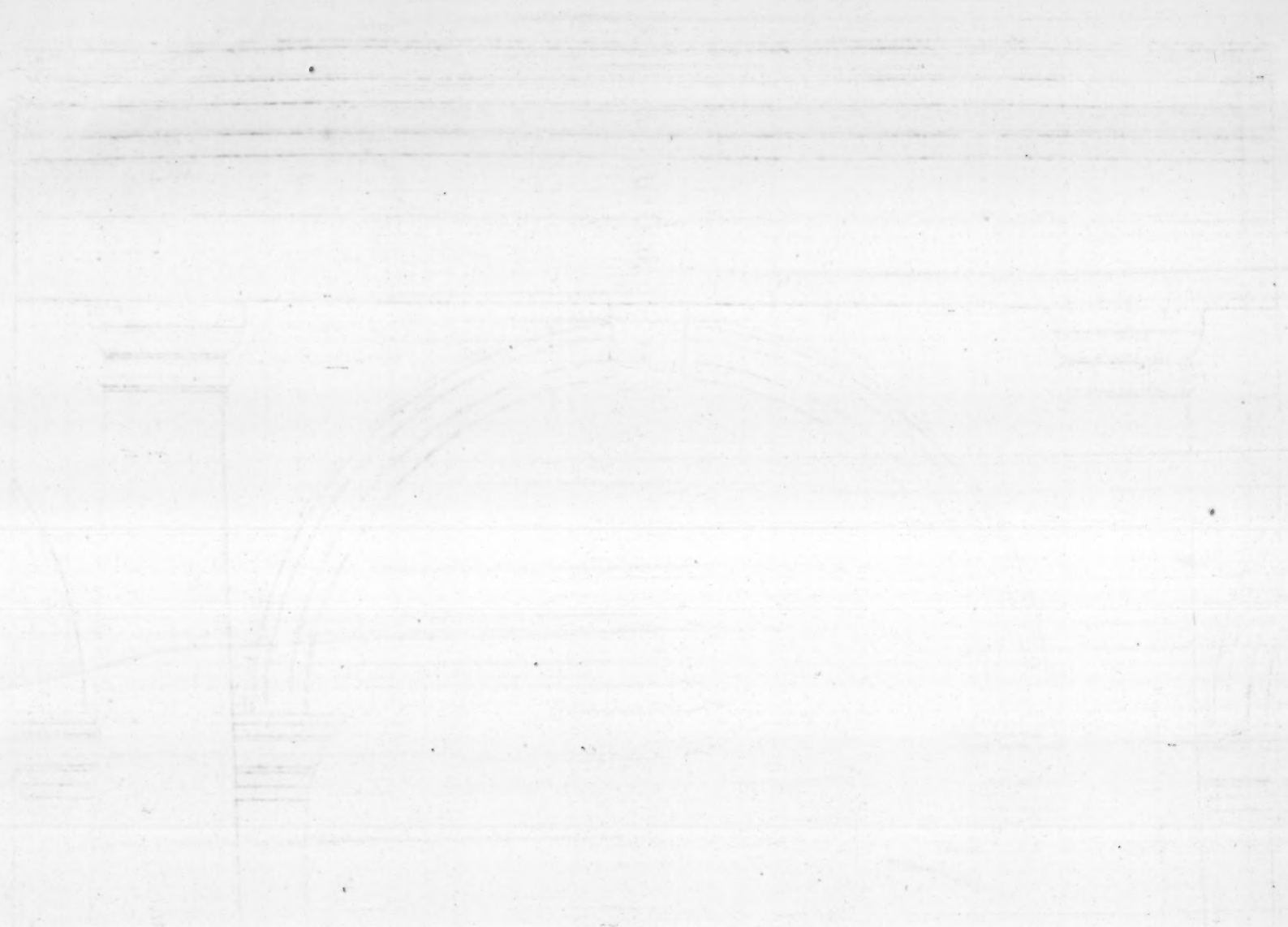




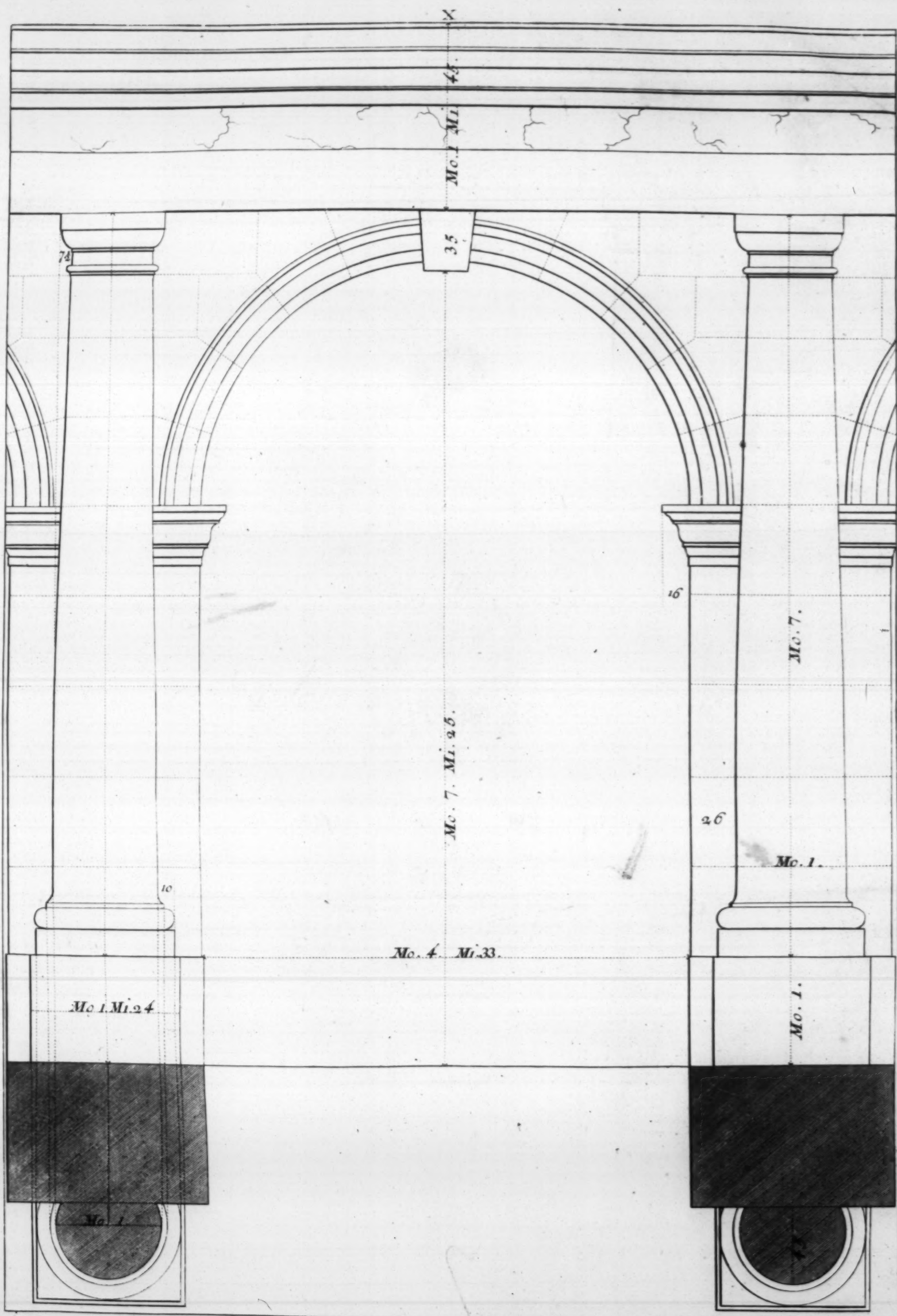






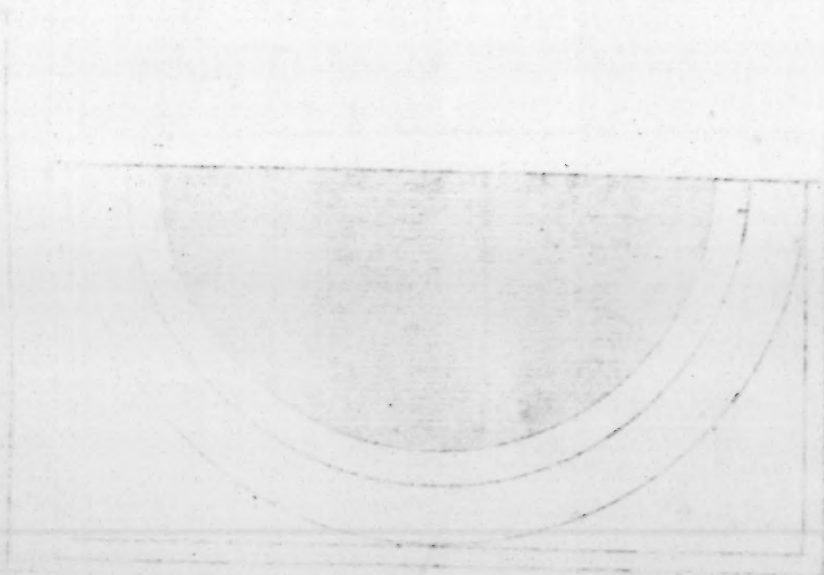
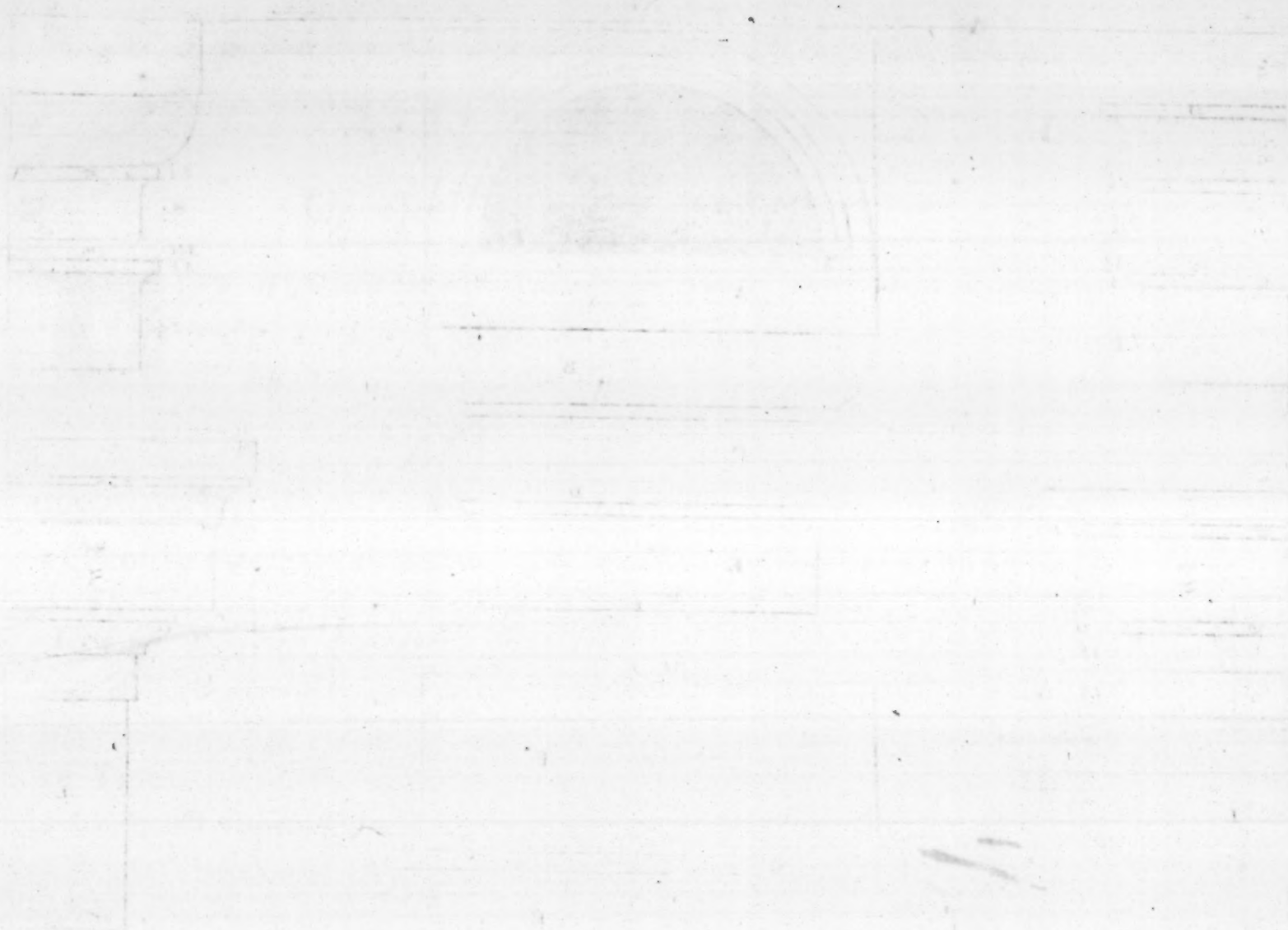






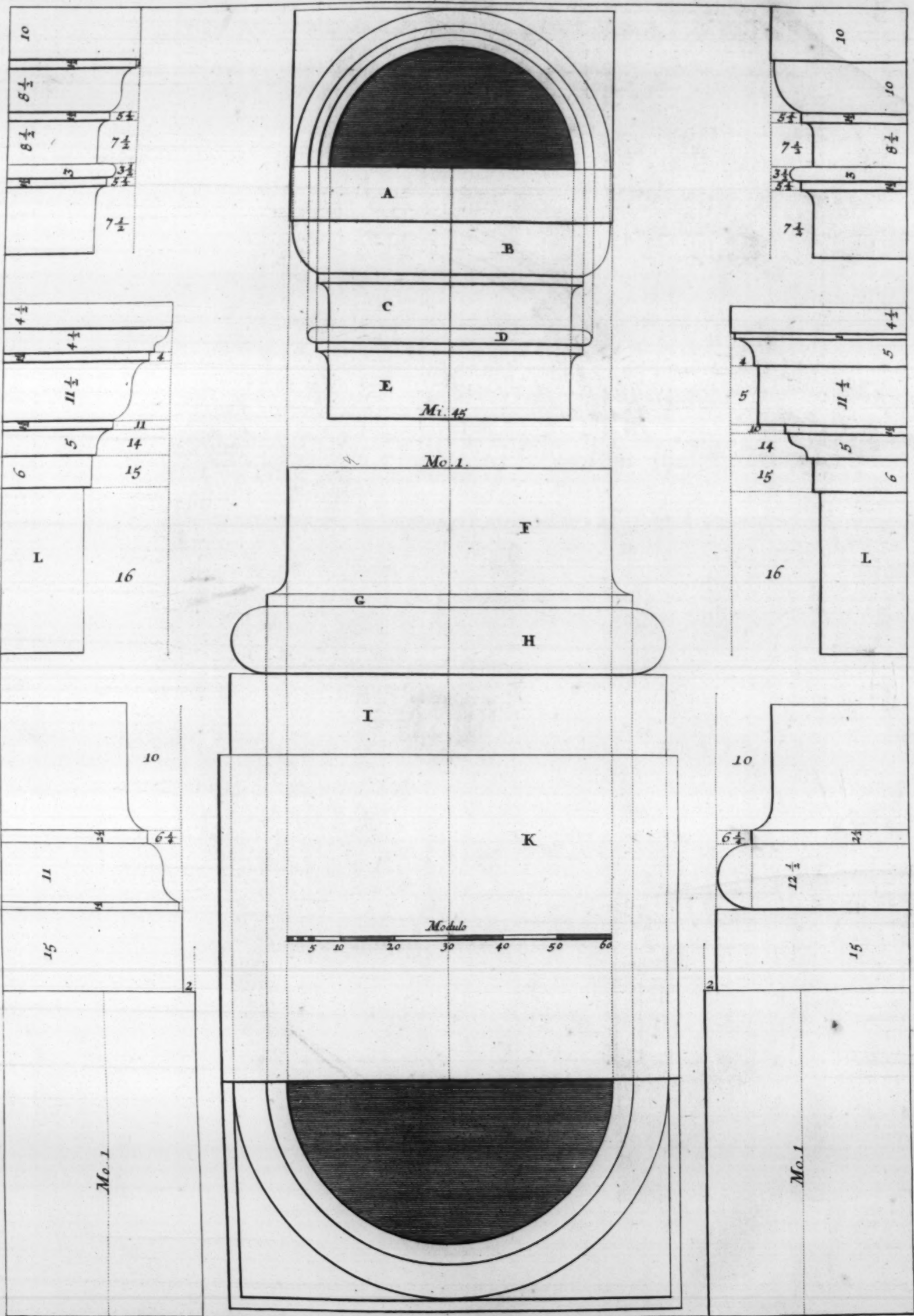
H. P. Buckle J. C.







XI





## C H A P. XIV.

## Of the TUSCAN Order.

\* **T**HE *Tuscan* Order, according to what *Vitruvius* writes of it, and what it is in effect, is the plainest and most simple of all the Orders of Architecture; because it retains more of the antient simplicity of the first Architects, who had not yet invented those Ornaments that render the other Orders so pleasant and so worthy of consideration. This Order draws its original from *Tuscany*, a Country very remarkable in *Italy*, where it still preserves its name.

The Column with its *Base* and *Capitel*, ought to be in length seven *Modules*, and the top diminish'd by a fourth part of its bigness. If one is to make a row of Columns of this order only, the *Inter-columns* may be kept very large, because the *Architraves* are commonly made of Timber; and for that reason, this order will be very convenient for a Country-building, for the going in and out of Carts, and other Country conveniencies, besides that the charge will be less considerable.

A. *Architrave of Timber.*

B. *The ends of the Traves, or Joysfs which make the Corona.*

† But if one would make Gates, or Galleries with Arches, then the measures, which I have mark'd in the design, must be strictly observ'd, wherein the Stones are so dispos'd and join'd together, as I think they ought to be, when the whole work is to be made of Stone. The same observation I have made for the four following orders; and this way of disposing and fastening the Stones, I have taken from many antient Arches, as will appear in my Book of *Arches*, wherein I have us'd the utmost care and diligence.

\*\* The *Pedestals* to be made under the Columns of this Order, must have a module in height, and be made plain. The *Base* is to be in height the half diameter of the Column; and this height is to be divided into two equal parts, whereof one is given to the *Orlo*, or *Plinth*, which must be made round, or *square according to some*. The other is divided into four parts; one for the *Listella*, or *Cincture*, which sometimes may be made a little less. In this Order only, it makes a part of the *Base*, for in all the others, it is join'd with the *shaft* of the Column. The other three

\* Plate IX. † Plate X. \*\* Plate XI.



parts are for the *Torus*. The projecture of this *basis* is a sixth part of a *module*, or of the diameter of the Column. The *Capitel* is likewise the height of half the diameter of the Column below, and is divided into two or three equal parts: one is given to the *Abacus*, which from its form, is commonly call'd *Dado*, or *Dye*; the other to the *Ovolo*, and the third is subdivided into seven parts. Of one is made the *Listella* under the *Ovolo*, and the other six remain for the *Collarino*, or the *Neck* of the Column. The *Astragal* is double the height of the *Listella* under the *Ovolo*, and its center is made upon the line which falls *plum* from the said *Listella*, the projecture of which falls perpendicularly upon the *Listella*, or *Cincture*, below the *Astragal*, which is as thick as the other. The projecture of the *Capitel* answers to the body of the column below. Its *Architrave* is made of wood, square every way, and its breadth is not to exceed the body of the column at the top. The *Traves*, or *Joysts*, which bear the *Eaves*, project a fourth part of the length of the Column. These are the measures of the *Tuscan Order*, as taught by *Vitruvius*.

- A. *Abacus*.
- B. *Ovolo*, or *Echinus*.
- C. *Collarino*, or *Frise* of the *Capitel*.
- D. *Astragal*.
- E. The *Body* of the Column above.
- F. The *Body* of the Column below.
- G. *Listella*, or *Cincture*, or *Anmulet*.
- H. *Torus*, or *Tore*.
- I. *Orlo*, or *Plinth*.
- K. *Pedestal*, or *Stylobatum*.

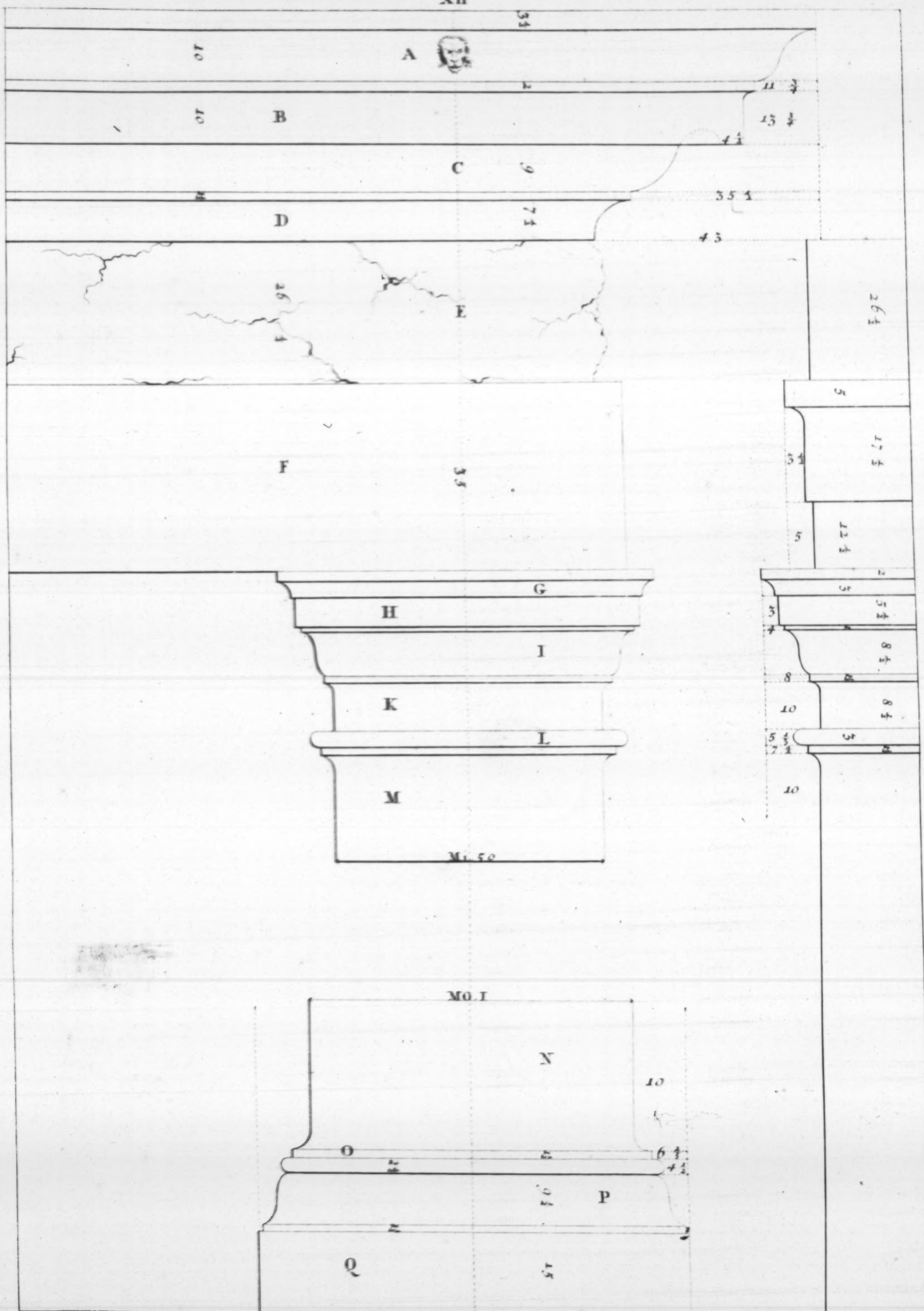
The *Profils* mark'd L. are the *imposts* of the *Arches*.

\* But if the *Architrave* is to be made of Stone, what was said before of the *Inter-columns* must be observ'd. There are to be seen some antient Buildings which may be said to have been built according to this Order, because they retain in part the same measures, as in the *Arena* of *Verona*, and the *Arena* and Theatre of *Pola* and many others, of which I have drawn the *Profils* of the *Basis*, *Capitels*, *Architraves*, *Frises*, and *Cornices*, which are in the last Plate of this Chapter, as those of the *Imposts* of the *Vaults* and *Arches*; of all which I shall put the designs into my Book of *Antiquities*.

- A. *Cimasum*, or *Cima recta*.
- B. *Corona*.



XII



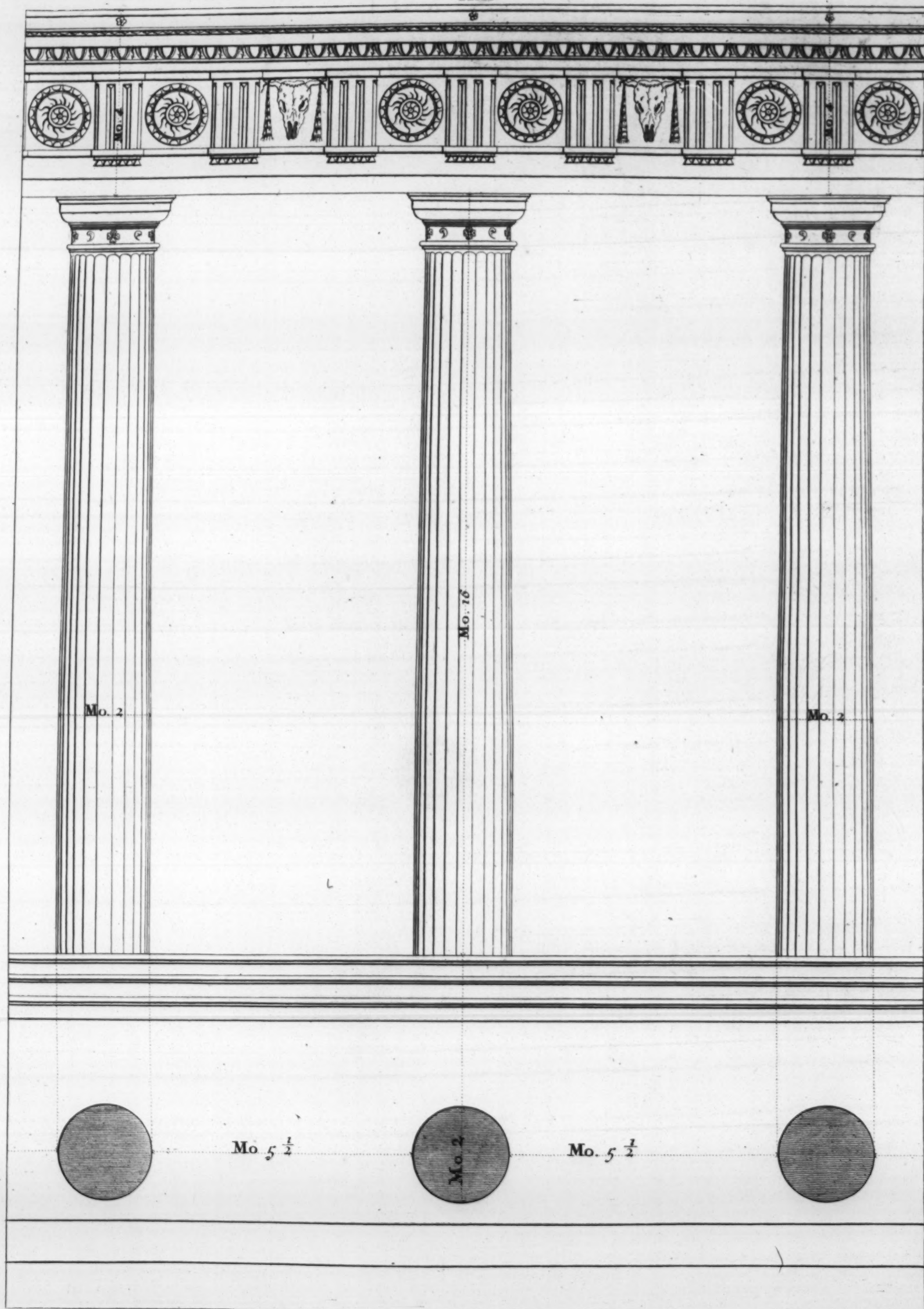










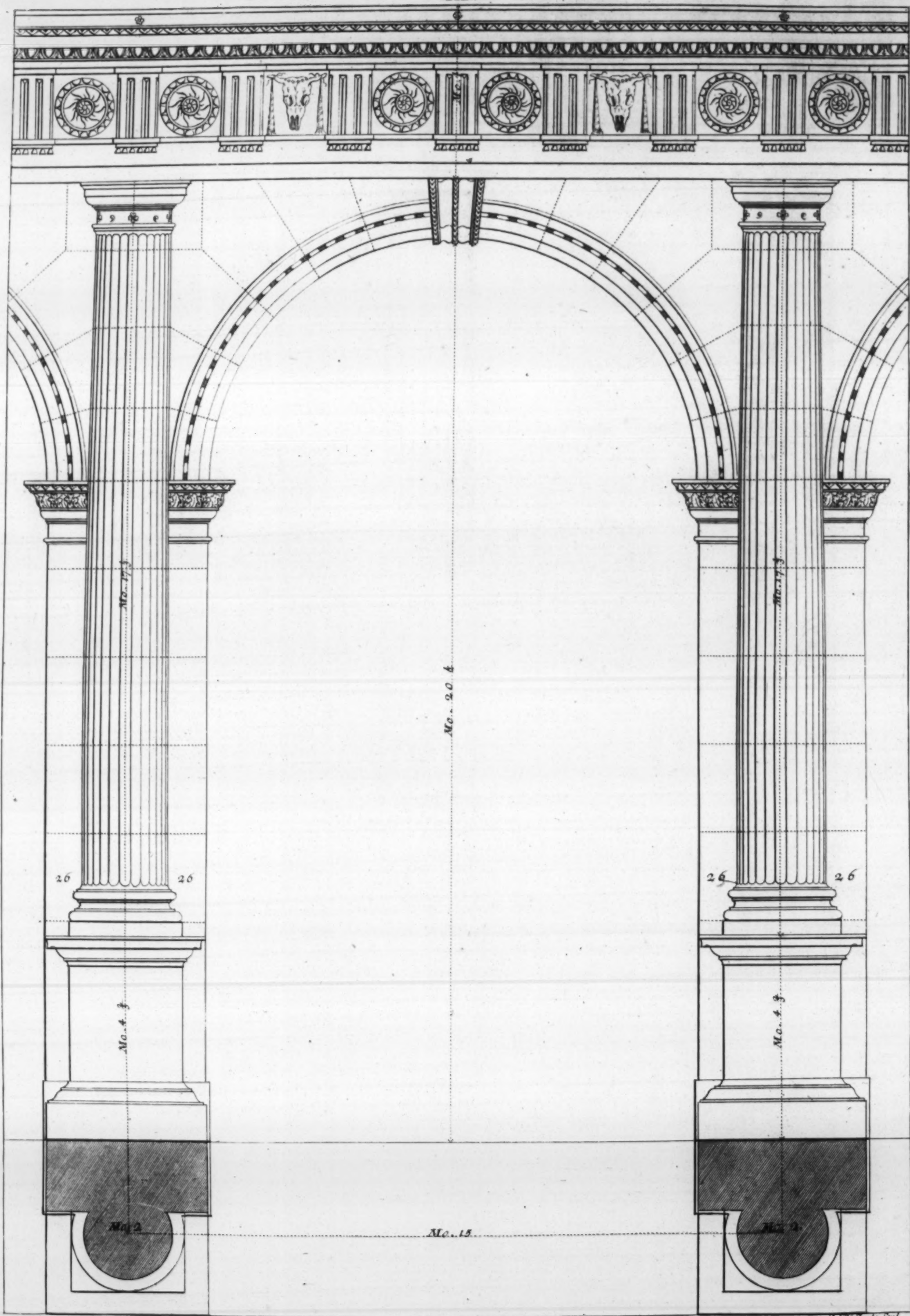




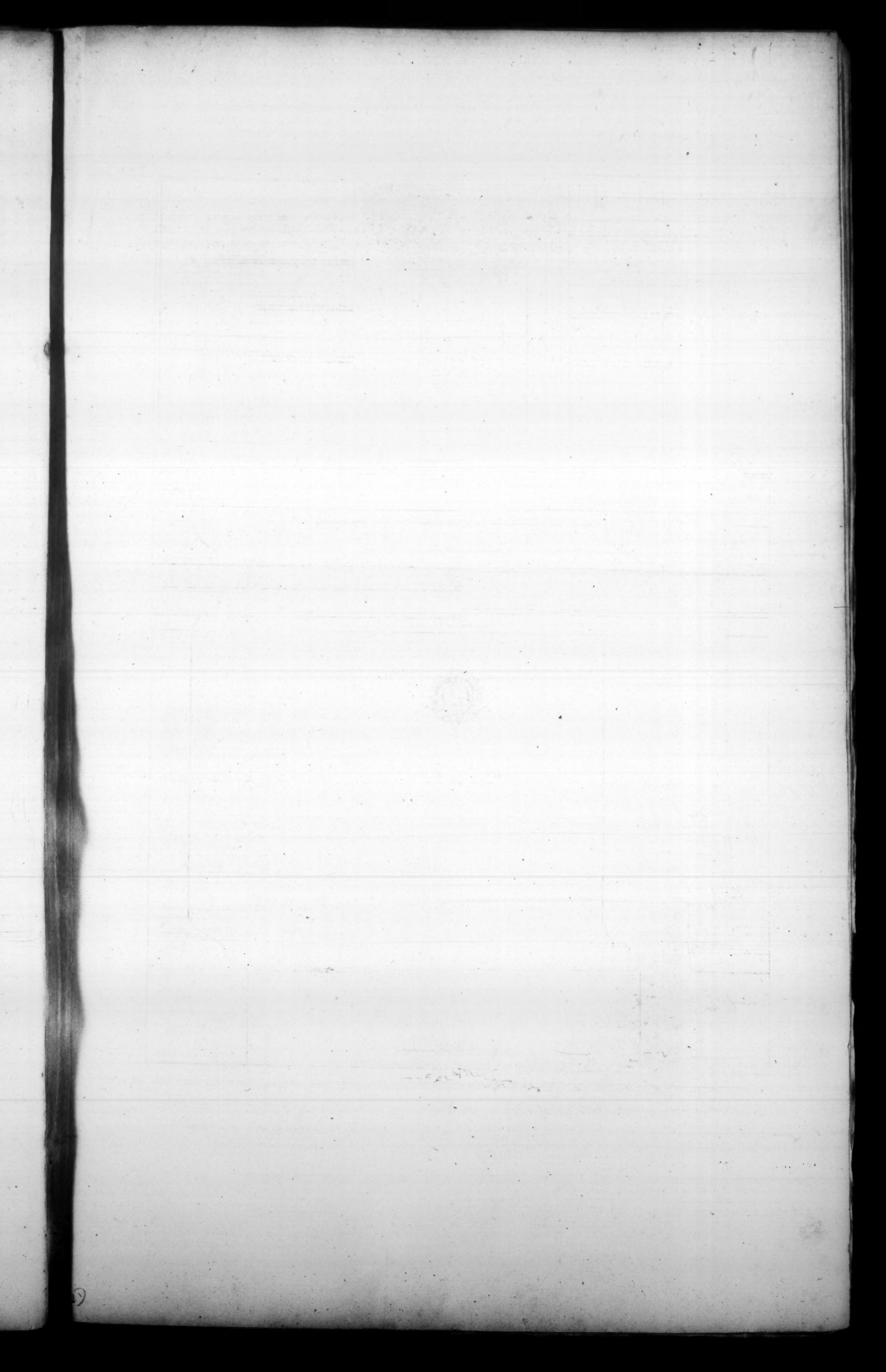
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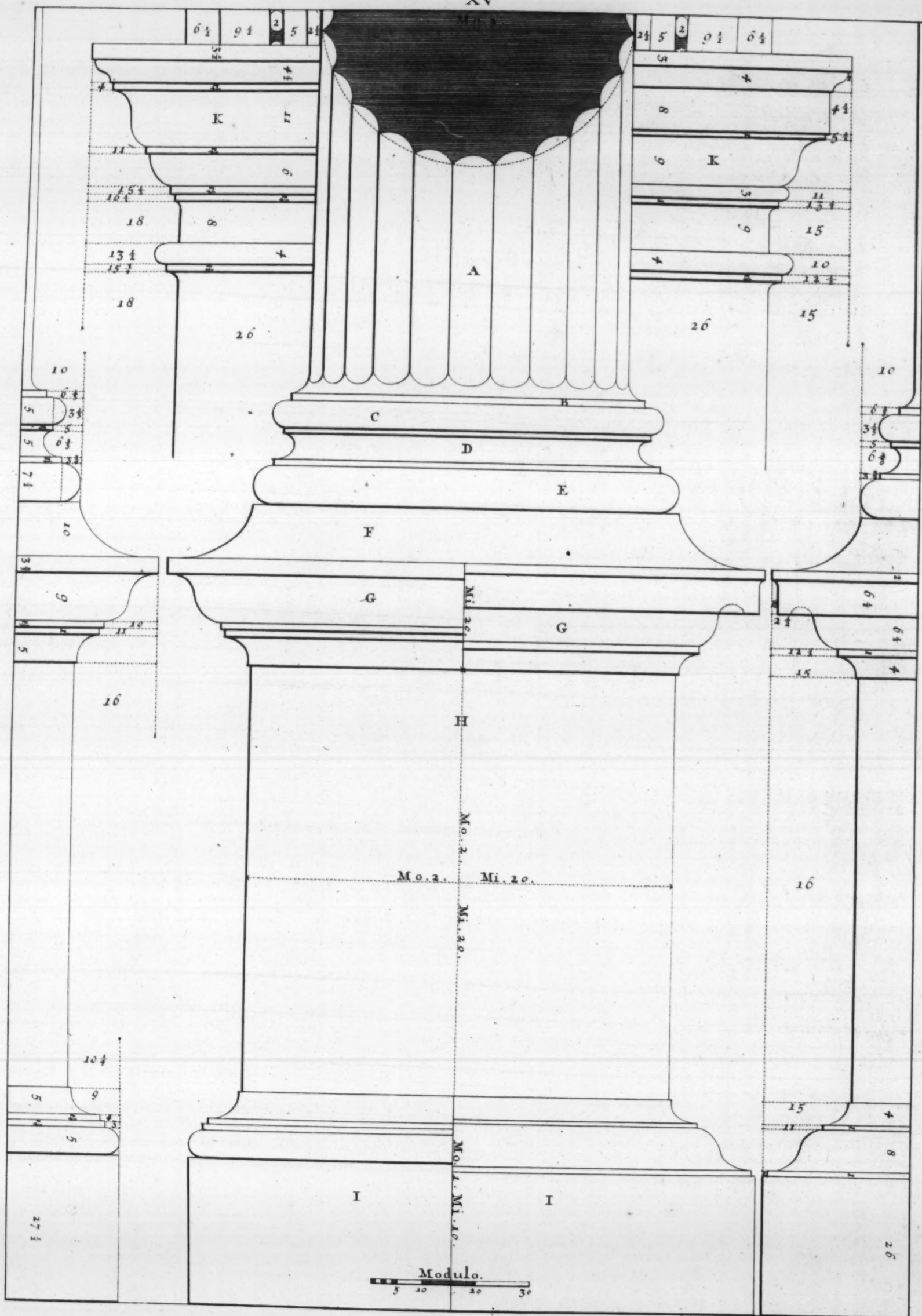














- C. *Cima recta*.  
 D. *Carvetto*.  
 E. *Frize*.  
 F. *Architrave*.  
 G. *Cimafium*.  
 H. *Abacus*.  
 I. *Cima recta*.  
 K. *Collarino*, or *Hypotrachilum*, or *Frize* of the *Capitel*.  
 L. *Astragal*.  
 M. *Body of the Column*, towards the *Capitel*.  
 N. *Body of the Column*, towards the *Basis*.  
 O. *Annulet*, *Listella*, or *Cincture*.  
 P. *Torus*, or *Tore*, in the form of a *Cima reversa*.  
 Q. *Orlo*, or *Plinth*.

On the right hand of the profil'd *Architrave*, mark'd F, I have given the *Profil* of another more curiously done.



## CHAP. XV

### Of the DORICK Order.

**T**HE Dorick\* Order was invented by the Dorians, and nam'd from them; being a Grecian People, which dwelt in Asia. If these Columns are made alone without Pilasters, they ought to be seven and a half, or eight diameters high. The *Inter-columns* are to be a little less than three diameters of the Columns: and this manner of spacing the Columns, is (by *Vitruvius*) call'd *Diastylos*.

† But if they are join'd to Pilasters, they must be, together with the *Basis* and *Capitel*, seventeen *modules* and one third high; that is, eight diameters and 35 parts: for it must be observ'd, that as I have said before in the 13th Chapter) the *module*, in this Order, is the half of the diameter of the column, divided into thirty parts; tho in all the other Orders, it is the whole diameter divided into 60 parts,

\*\* Among the Antients there was no *Pedestl* to this Order, tho the modern Architects have adapted one to it. Therefore if one has a mind to join a *Pedestal*, the *Dado*, or *Dye* of it, must be a perfect square, and from its measure those of its Ornaments

\* Plate XIII. † Plate XIV. \*\* Plate XV.



shall be taken: in order to this, the *Dye* is to be divided into three equal parts; the *basis*, with its *socket* or *plinth*, shall take two of them, and the *Cimassum* one; to which the *Orlo*, or *plinth* of the *basis* of the Column must be join'd. This kind of *Pedestal* may be seen in the *Corinthian* Order, as at *Verona* in the Arch call'd the Arch *de Lioni*. I have set down here several manners of *profils*, which may be fitted to the *Pedestals* of this Order, which are all very agreeable, taken from antient pieces, and very carefully measur'd. This Order has no proper *basis*: wherefore in many Buildings, its Columns are without a *basis*, as in the Theatre of *Marcellus* in *Rome*, in the Temple *de la Pieta* near the said Theatre: in the Theatre of *Vicenza*, and in divers other places. But sometimes the *Attick basis* is join'd to it, which is a great ornament to the Order, the proportion whereof is as follows. The height is the half diameter of the Column, and is divided into three equal parts: one is for the *Zocco* or *plinth*: The other two are subdivided into four parts, of one is made the *Torus superior*: the three remaining are again subdivided into two, one for the *Torus inferior*, and the other for the *Scotia*, or *Cavetto*, with its *Annulets*, or *Listellas*; which have also their peculiar measures: for in dividing the whole into six parts, the two *Annulets*, or *Listellas* take each of them one, and the four remaining are for the *Scotia*. The whole projecture of the *basis* must be the sixth part of the diameter of the Column; the *Cincture* is as broad as half of the *Torus superior*: if it be divided from the *basis*, its *projecture* must be the third part of the whole *projecture* of the *basis*. But if the *basis* and a part of the Column must be of a piece, the *Cincture* must be smaller; as it may be seen in the third design of this Order, where I have also drawn two manners of *Imposts* for Arches.

A. The Body of the Column.

B. Annulet, or Cincture, or Listella.

C. Upper Torus.

D. Cavetto, or Scotia with its Annulets, or Listellas.

E. The lower Torus.

F. Zocco, or Plinth.

G. Cimassum.

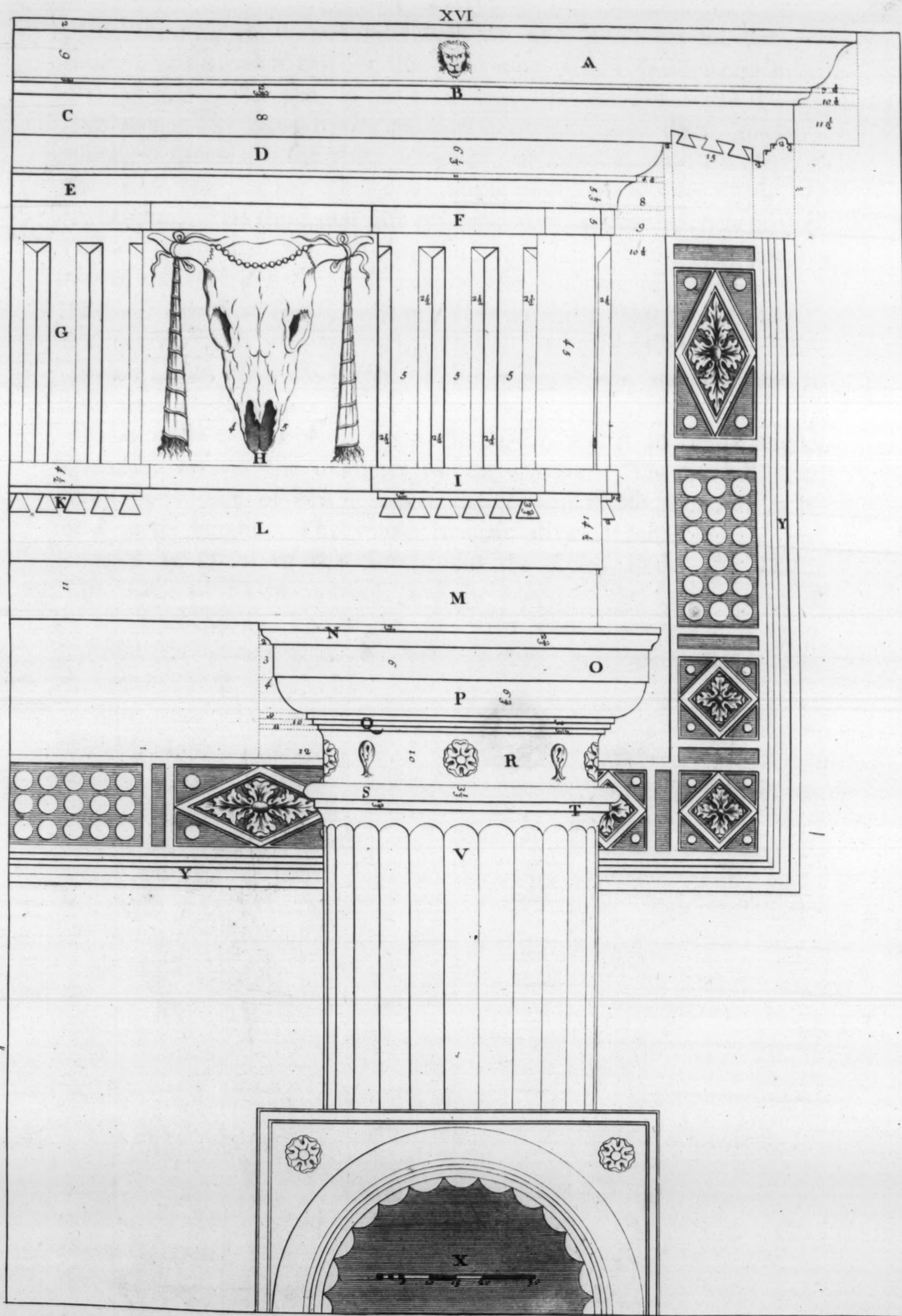
H. Dado, or Dye, or Square } of the Pedestal.

I. Basis.

K. Imposts of Arches.

\* The *Capitel* likewise ought to have in height the half diameter of the Column, which being divided into three principal











parts, the first above is subdivided into five, three are for the *Abacus*, and the other two for the *Cimasum*; which being again subdivided into three, the *Listella* takes one, and the *Cima recta* the other two. The second principal part is divided into three, one of which is given to the three *Annulets*, or *Listellas*, that are equal; the other two are for the *Ovolo*, whose *projecture* is two thirds of its height. The third and last principal part, is for the *Frize* of the *Capitel*, call'd *Collarino*, or *Gorgerin*, or *Collar*. The whole *projecture* of the *Capitel* is the fifth part of the diameter of the Column. The *Astragal* is of the same height with the three *Filets*, or *Annulets*; and is equal in its *projecture* with the lowest part of the Column. The *Annulet* is only half the height of the *Astragal*, and its *projecture* is *plum* with the Center of it.

The *Architrave* is plac'd upon the *Capitel*, and is to be in height a *module*, or half the diameter of the Column. 'Tis divided into seven parts, one of which makes the *Tenia*, whose *projecture* is equal to its height. The whole is again divided into 6 parts, one whereof is given to the *Gutta*, and the *Listel*, under the *Tenia*. The *Gutta* are six in number, and the height of the *Listel* is a third of the said *Gutta*. The whole, from the *Tenia* downwards, is again divided into seven parts, of which the first *fascia* takes three, and the second four.

The *Frize* is in height a *module* and a half. The breadth of the *Triglyph* is one *module*: and its *Capitel* takes up the sixth part of a *module*. The *Triglyph* is divided into six parts, two whereof are given to the two *Chanel*s in the middle, and one to the two half *Chanel*s at the extremities: the other three make the spaces between the said *Chanel*s. The *Metopa*, that is to say, the space between two *Triglyph*s, ought to be perfectly square. The height of the *Cornice* is a *module* and a sixth, and is divided into five parts and a half: of which two are for the *Carvetto*, with its *Listel*, and the *Ovolo*. The *Carvetto* is less than the *Ovolo*, by as much as its *Listel*. The other three and a half are allow'd for the *Corona*, or *Cornice*, and to the two *Cimas*, the *reversa* and the *recta*. The *Corona* ought to project two thirds of a *module*, and to have on its plain underneath six *Gutta* in length, and three in breadth with their *Listels* over the *Triglyph*s, and some *Roses*, or other *Ornaments*, over the *Metopa*. The *Gutta* are round, and in the shape of little *Bells*: those under the *Corona* must answer to those under the *Tenia*. The *Cimasum* ought to be an eighth part larger than the *Corona*, and is divided into eight parts, two whereof are given to the *Listel*, and



the other fix to the *Cimaise*, whose *projecture* is seven parts and a half. So that, at this rate, the *Architrave*, the *Frize* and *Cornice*, rise to the height of the fourth part of the *Column*: and these are the proportions of the *Cornice* according to *Vitruvius*, from whom I have a little receded, by altering some Members of it, and making the whole somewhat larger.

- |   |   |
|---|---|
| A. <i>Cima recta</i> .                  | O. <i>Abacus</i> .                                  |
| B. <i>Cima reversa</i> .                | P. <i>Ovolo</i> .                                   |
| C. <i>Corona</i> .                      | Q. <i>Annulets</i> , or <i>Listellas</i> .          |
| D. <i>Ovolo</i> .                       | R. <i>Collar</i> , or <i>Frise of the Capitel</i> . |
| E. <i>Carvetto</i> .                    | S. <i>Astragal</i> .                                |
| F. <i>The Capitel of the Triglyph</i> . | T. <i>Listella</i> , or <i>Cincture</i> .           |
| G. <i>Triglyph</i> .                    | V. <i>Body of the Column</i> .                      |
| H. <i>Metopa</i> .                      | X. <i>The Plan of the Capitel</i> , and the         |
| I. <i>Tenia</i> .                       | <i>Module divided into thirty Mi-</i>               |
| K. <i>Gutta</i> .                       | <i>minutes</i> , or <i>Parts</i> .                  |
| L. <i>First Fascia</i> .                | Y. <i>Soffita</i> , or the underneath of the        |
| M. <i>Second Fascia</i> .               | <i>Corona</i> .                                     |
| N. <i>Cimafium</i> .                    |   |



## C H A P. XVI.

### Of the IONICK Order.



THE \* *Ionick Order* had its Original in *Ionia*, a Province of *Asia*; and we read that the famous Temple of *Diana* at *Ephe- sus* was built of that Order. The *Column* with its *Capitel* and *Base*, is nine *modules* high: and by a *module* is understood, as we have said before, the diameter of the *Column* below. The *Architrave*, *Frize*, or *Cornice*, have the fifth part of the height of the *Column*. When the *Columns* are single, the *Inter-columns* are of two diameters and a fourth part, and this is the most beautiful and commodious manner of all *Inter-columns*, which *Vitruvius* calls *Eustylos*.

† In the *Arches*, the *pilasters* are in breadth a third part of the space between two of them; and the *Arch* ought to be in height the double of the said space.

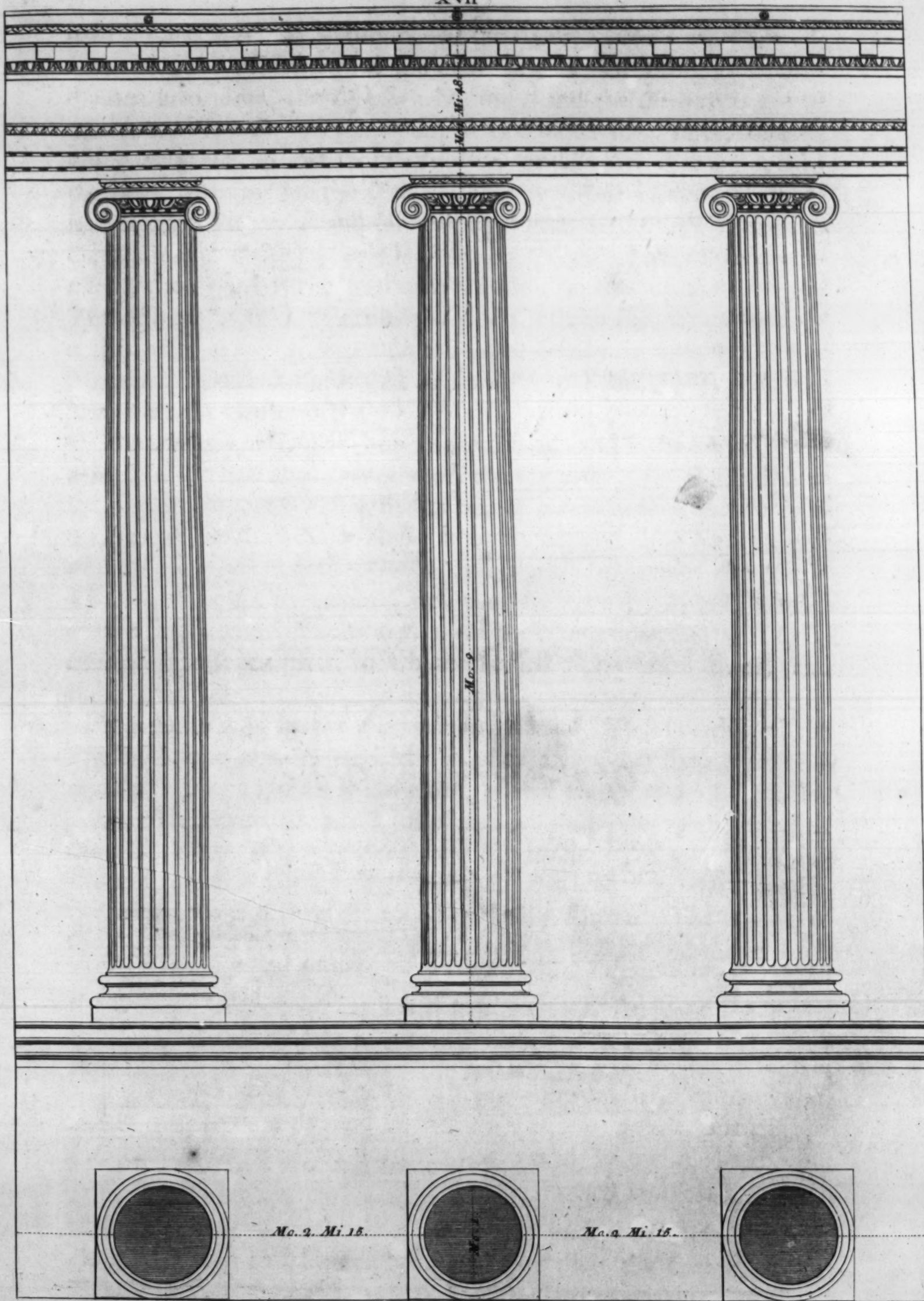
\*\* If there is to be given a *pedestal* to the *Column* of the *Ionick Order*, as in any design of *Arches*, it must be made as high, as half

\* Plate XVII.

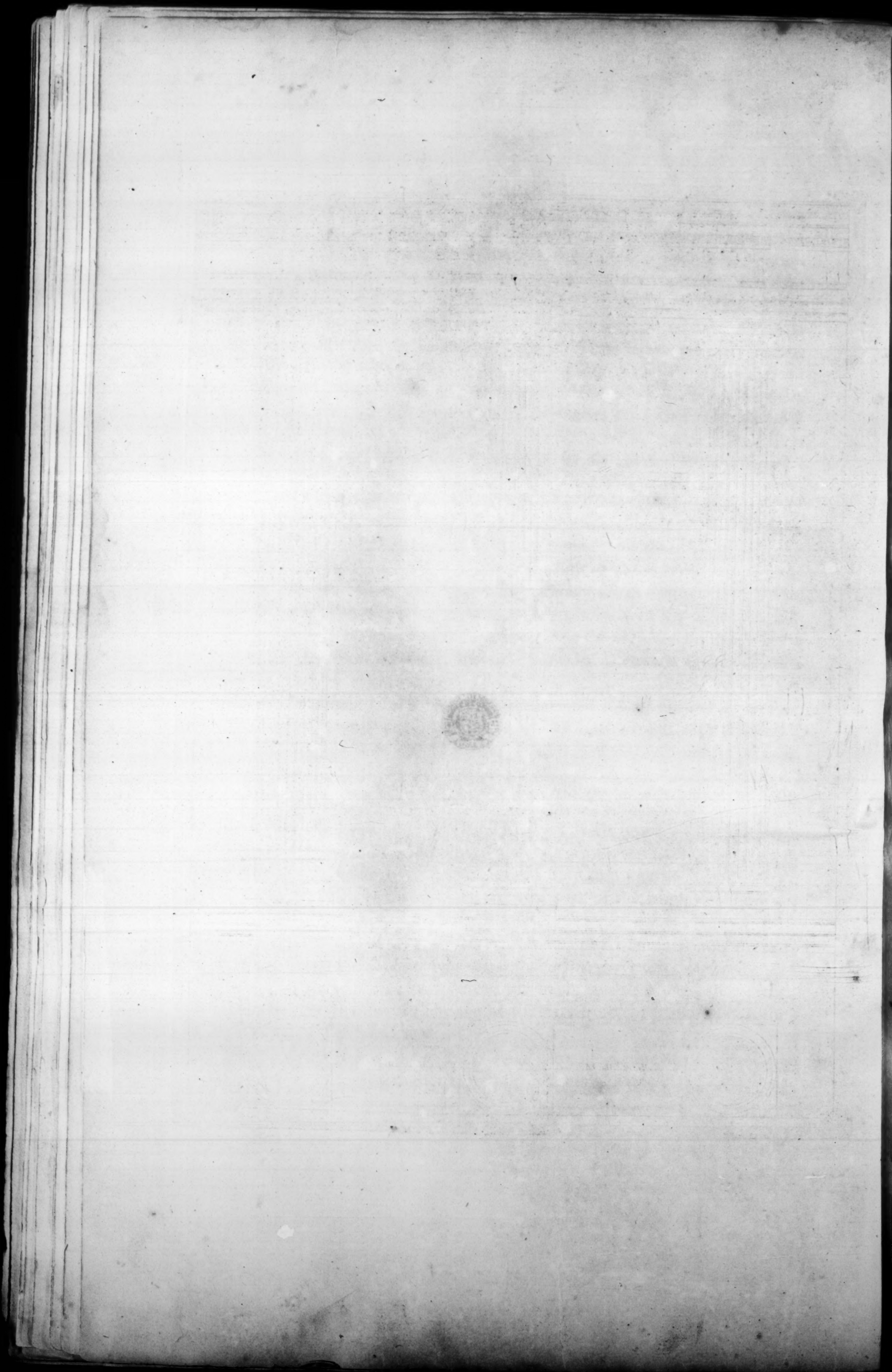
† Plate XVIII.

\*\* Plate XIX.

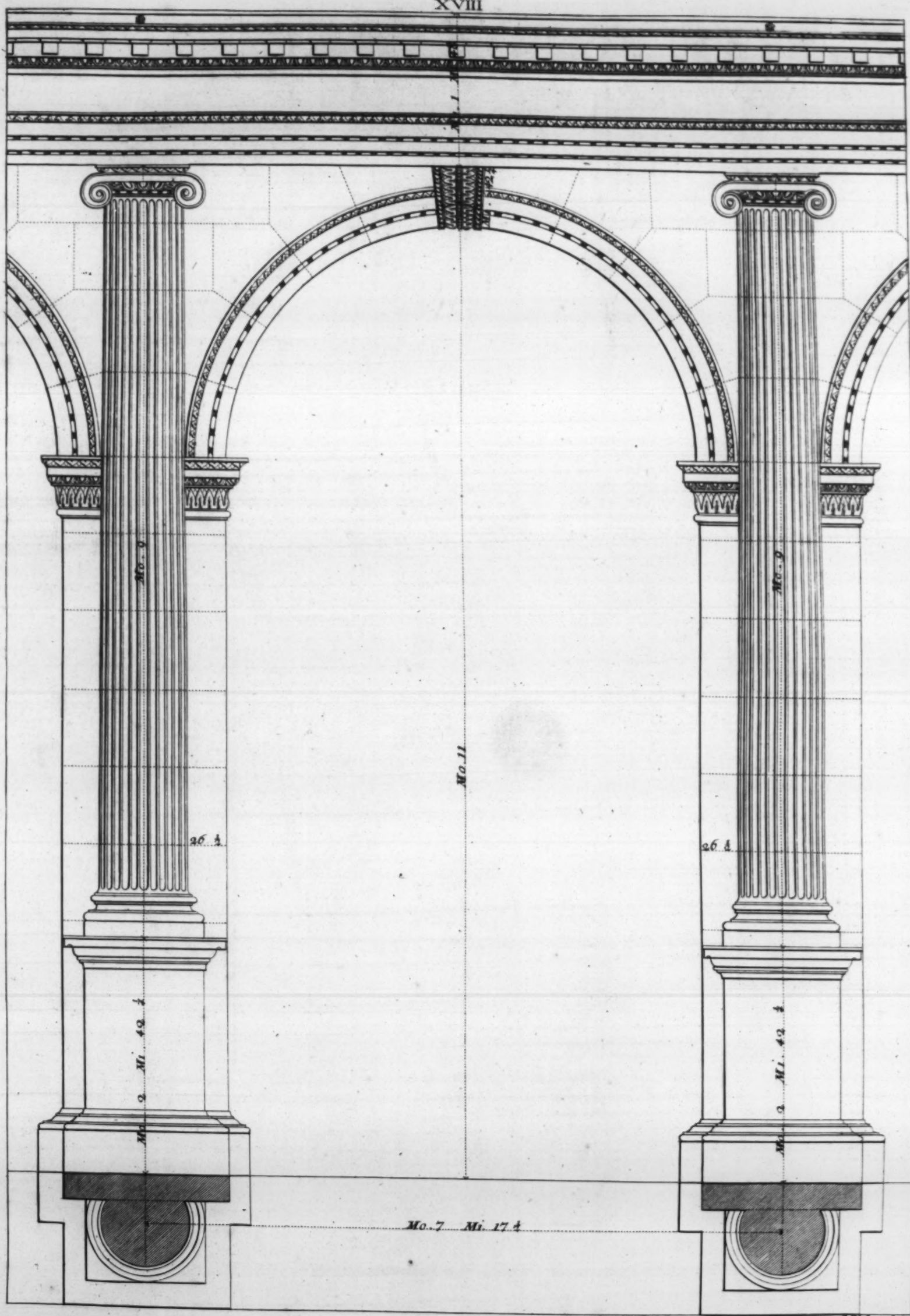




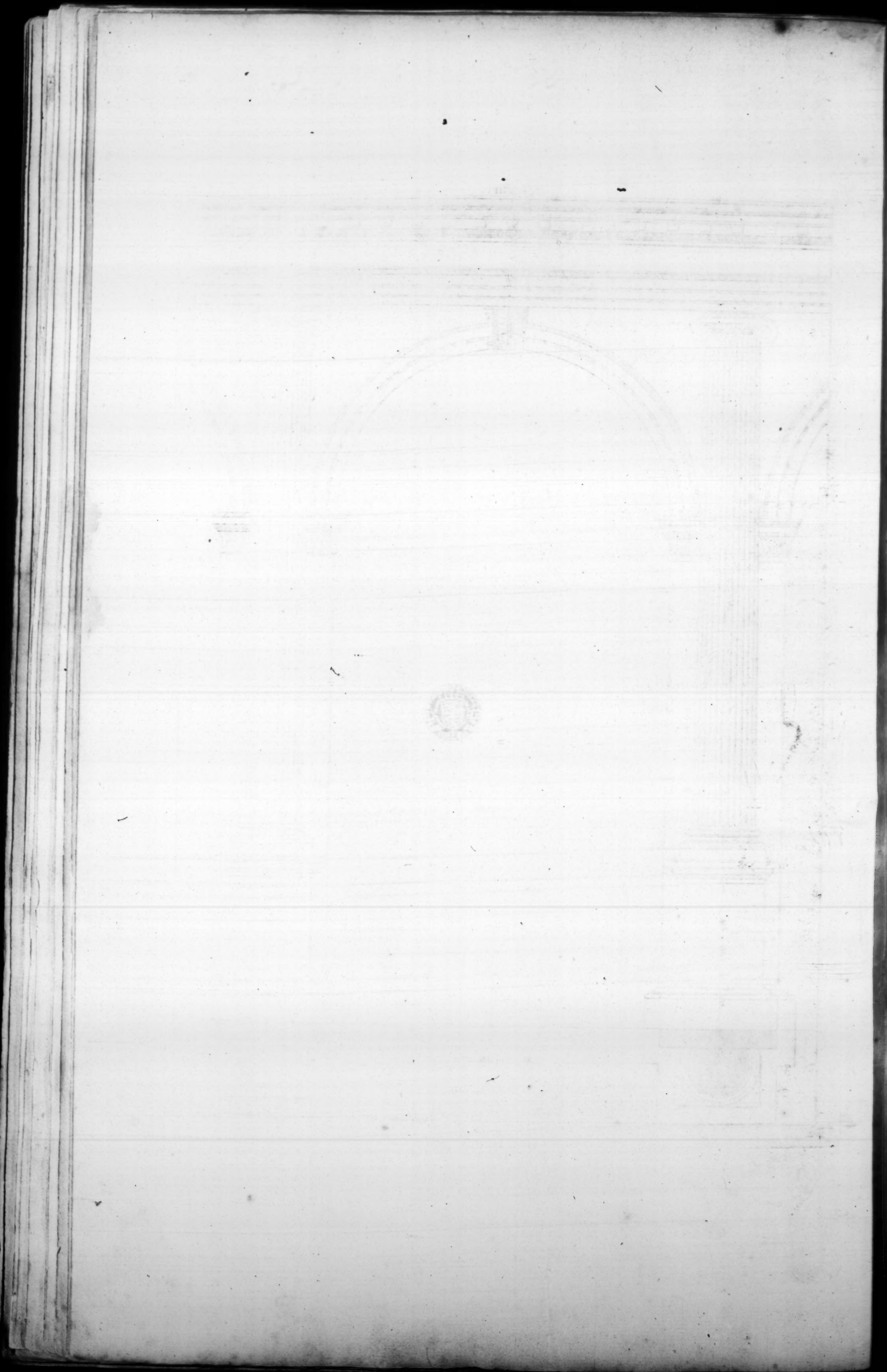




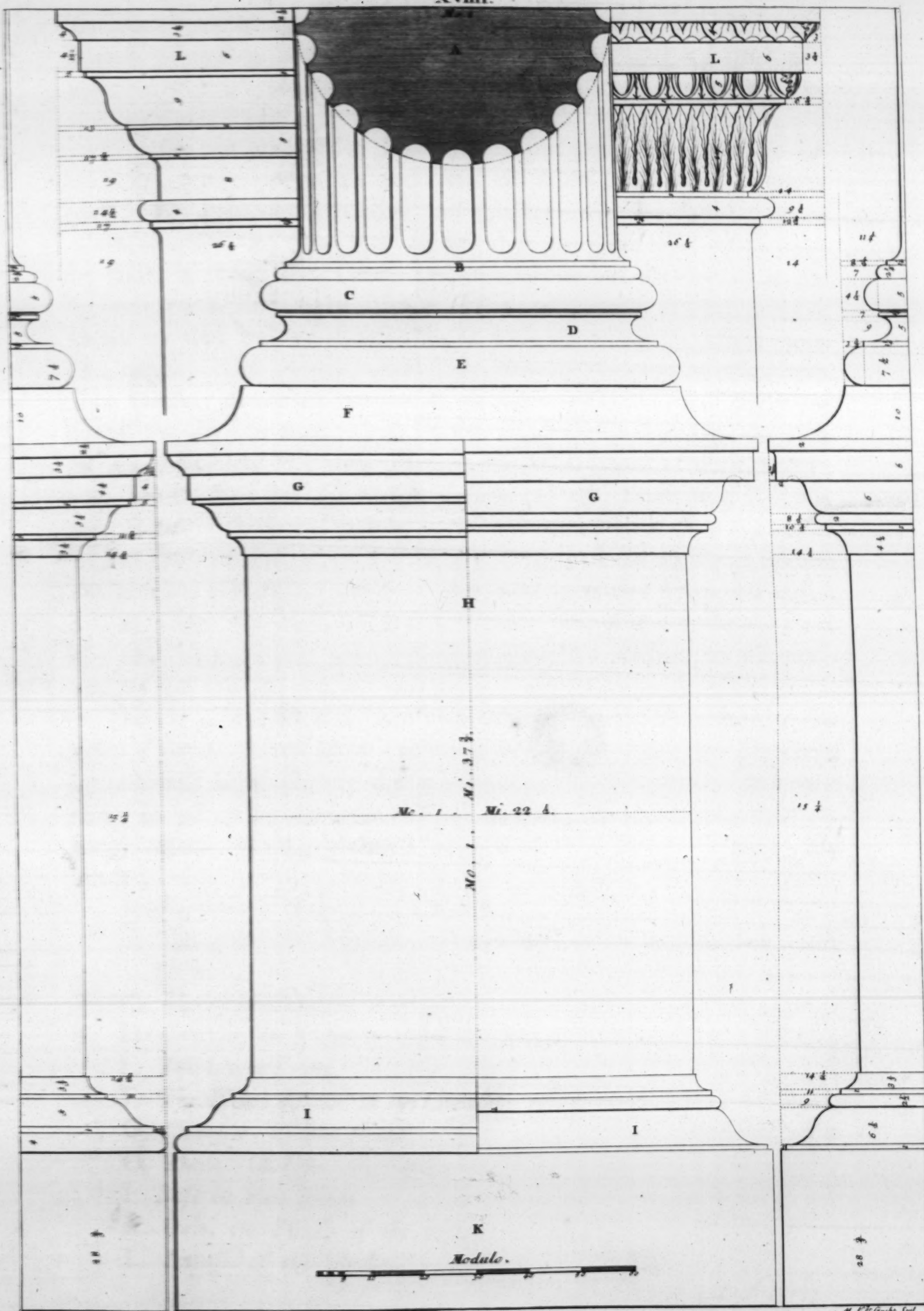




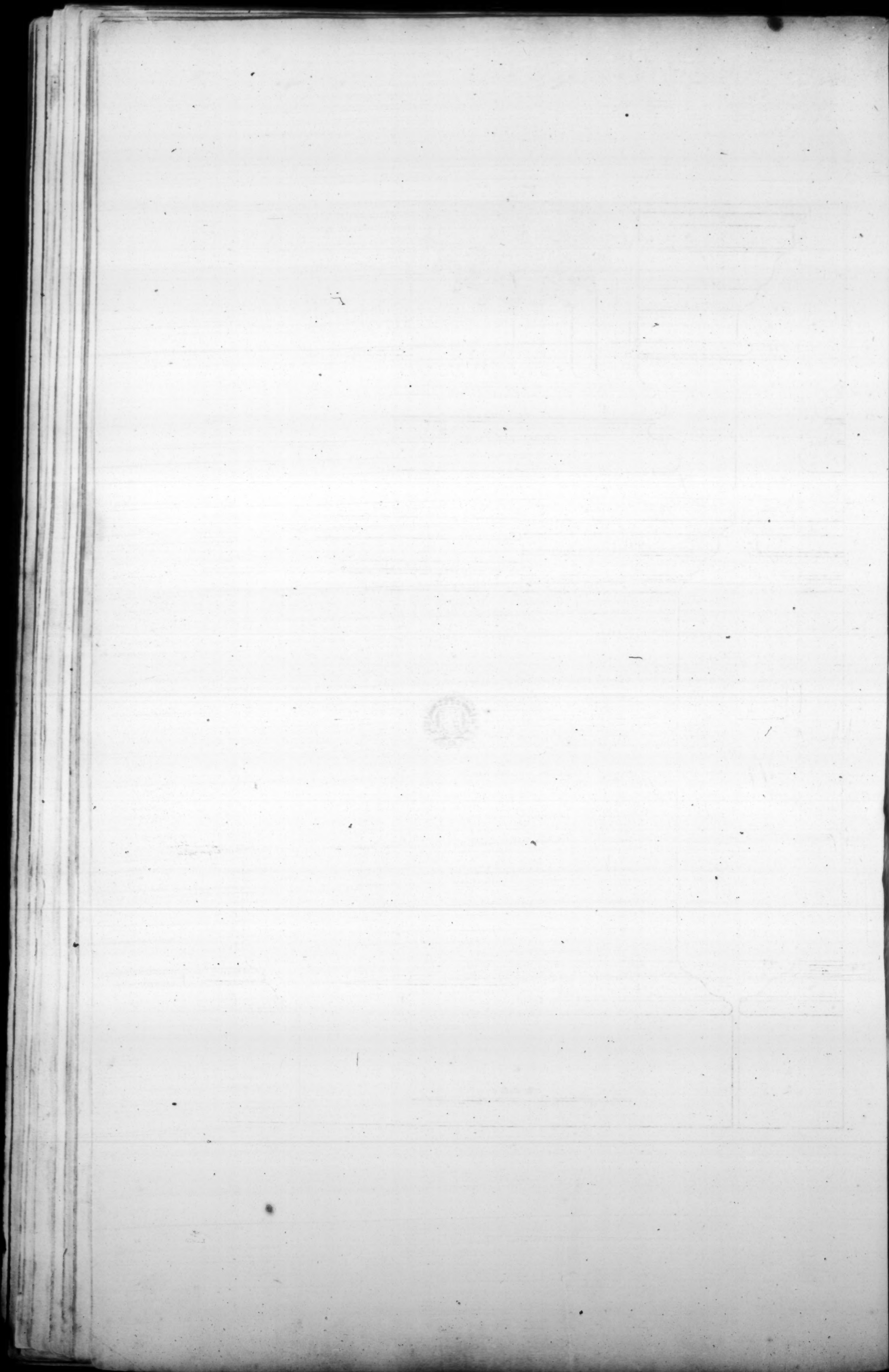














the breadth of the opening of the Arch: and having divided it into 7 parts and a half, two of them shall make the *Base* and one the *Cimasi-um*; the other four and a half remaining shall be for the *Dado*, or *Square* of the *Pedestal*.

The *Base* of this Order is half a module height, and is divided into three parts: one is for the *Orlo*, or *Plinth*; whose *projecture* is the fourth part of its height, and consequently the eighth part of a module: the two other parts of the *Base* are subdivided into seven; of three is made the *Torus*; the other four are divided again into two parts, one given to the *Scotia*, or *Cavetto* above, and the other to that below, which ought to have more *projecture* than the other. The *Astragal* must have the eighth part of the *Scotia*. The *Cincture* of the *Column*, is the third part of the *Torus* of the *Base*; but if the *base* be made a part of the *Column*, the said *Cincture* may be made smaller, as I have already observ'd in the *Dorick* Order; and the *Cincture* has half of the *projecture* already mention'd. These are the measures of the *Ionick base*, according to *Vitruvius*.

But because the *Attick base* is put to this Order in many antient Buildings, and that it seems to me more agreeable upon a *Pedestal*, I have drawn the *Attick base* with a small *Astragal* under the *Cincture*, not omitting, at the same time, to give the Design as *Vitruvius* teaches us.

The Designs mark'd L. are two different *profils* to make the *Imposts* of Arches; and upon each of them the measures are set down by numbers which signify the *minutes*, or parts of a module, as I have done in all other Designs. These *Imposts* are in height half as much again, as the thickness of the *pilaster*, which supports the Arch.

- A. Part of the Body of the Column.
- B. Astragal with its *Listella*, or *Cincture*, which are Members of the Column.
- C. The upper *Torus*.
- D. *Cavetto*, or *Scotia*.
- E. The lower *Torus*.
- F. The *Plinth* fastned to the *Cimasi-um* of the pedestal.
- G. *Cimasi-um* in two forms
- H. *Dado*, or *Dye*, or *Square* } of the pedestal.
- I. *Base* in two forms }
- K. *Orlo*, or *Plinth* of the base.
- L. *Imposts* of the Arches.



\* In order to make the *Capitel*, the foot of the Column must be divided into 18 parts, and 19 of such parts will be the length and breadth of the *Abacus*, the half of which is given to the height of the *Capitel* with its *Volutas*, whereby it comes to be 9 parts and a half high. One and a half is for the *Abacus* with its *Cimafium*; the other eight remain to the *Voluta*, which is made in the following manner. From the extremity of the *Cimafium*, one of the nineteen parts being taken within, from the point where that nineteenth part ends, a line is let fall *plum*, which divides the *Voluta* by the middle, and is call'd the *Catheta*. Where the point falls upon this line, which separates the four parts and a half above, with the three and a half below, there is made the Center of the *Eye* of the *Voluta*, whose diameter is one of the eight parts of its height; and from the said point a line is drawn, which intersecting at right Angles the *Catheta*, divides the *Voluta* into four parts. Next in the *Eye* of this *Voluta* a square is form'd, the bigness whereof is the half diameter of the said *Eye*: and two diagonal lines being drawn in it, upon them are mark'd thirteen points (computing the Center of the *Eye*) which are as many Centers whereon the fix'd foot of the Compass is to stand to make the *Voluta*; and as to the order which must be observ'd in them, it appears by the numbers mark'd in the Design. The *Astragal* of the Column is right against the *Eye* of the *Voluta*. The *Volutas* are as thick in the middle, as is the *projecture* of the *Ovolo*, which reaches beyond the *Abacus*, so much as does the *Eye* of the *Voluta*. The hollow, or *Channel* of the *Voluta*, is even with the body of the Column. The *Astragal* of the Column turns about under the *Voluta*, and is always visible, as it appears by the *Plan*: for 'tis natural that so slender a thing as the *Voluta* is feign'd to be, should give way to another stronger, as the *Astragal* is, from which it is always equally distant.

In the Angles of *Collonades*, or rows of Columns, and *Porticos* of the *Ionick* Order, *Capitels* are made with their *Volutas*, not only in the front, but also on that part which, making the *Capitel* as usual, would have been the *Flank*; whereupon they come to have the front on two sides, and are call'd *Angular-Capitels*. How they are to be made I shall teach in my *Book of Temples*, i. e. the 4th Book.

A. *Abacus*.

B. *Channel, or hollow of the Voluta*.

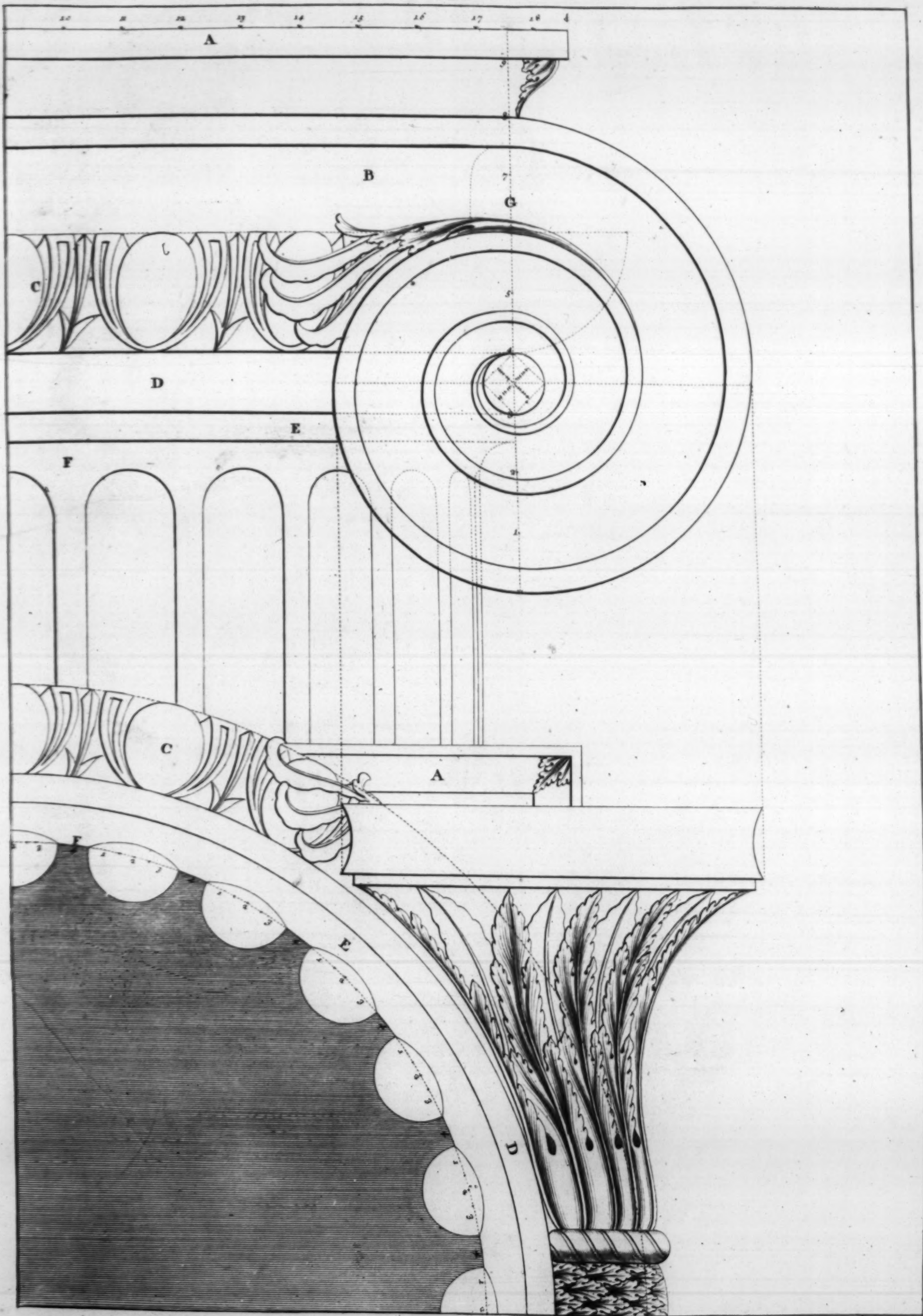
C. *Ovolo*.

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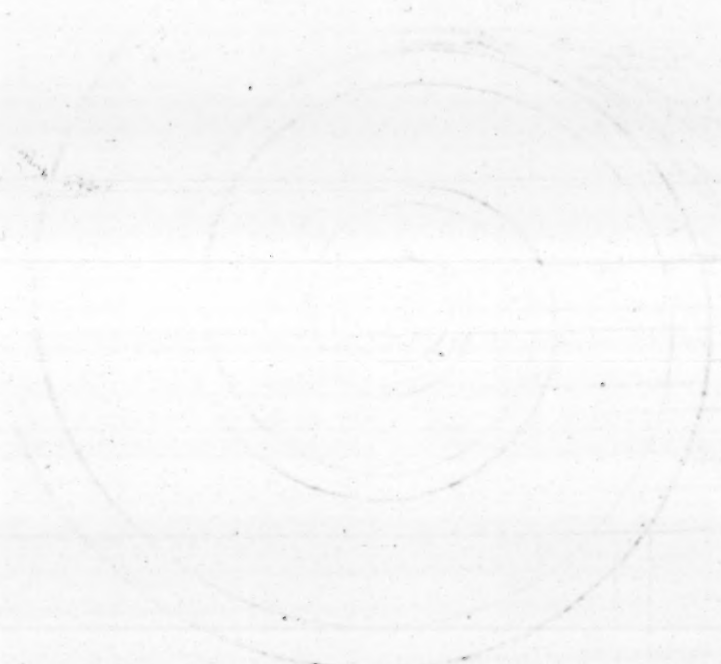
\* Plate XX.

D. *Astra-*

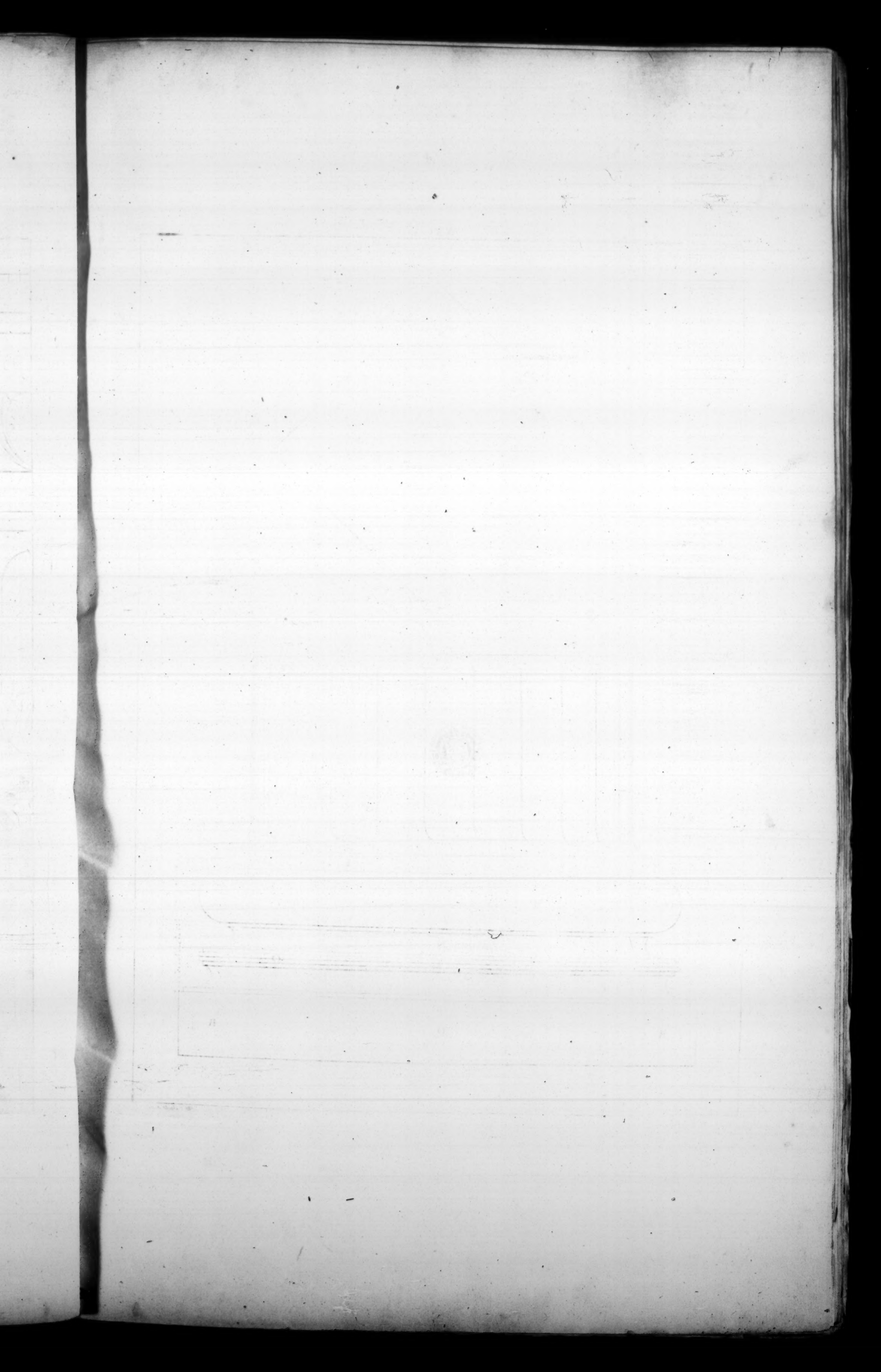




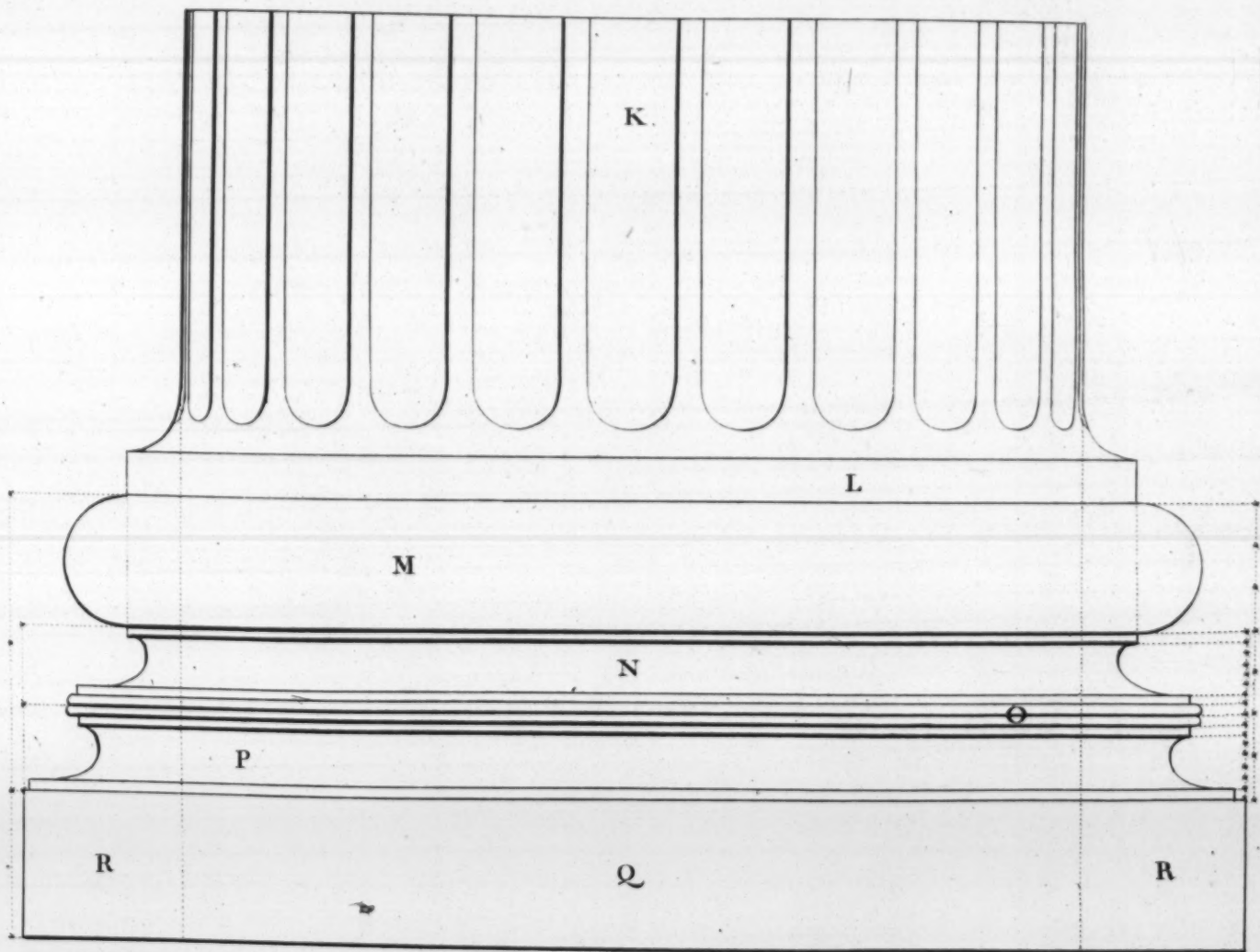
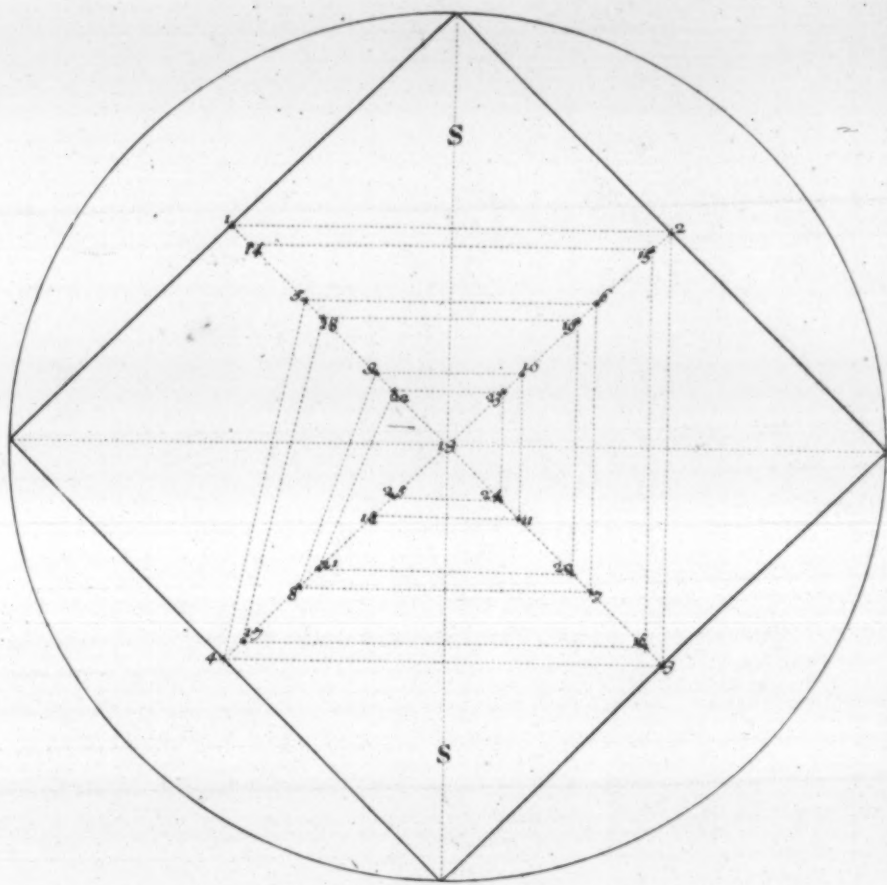




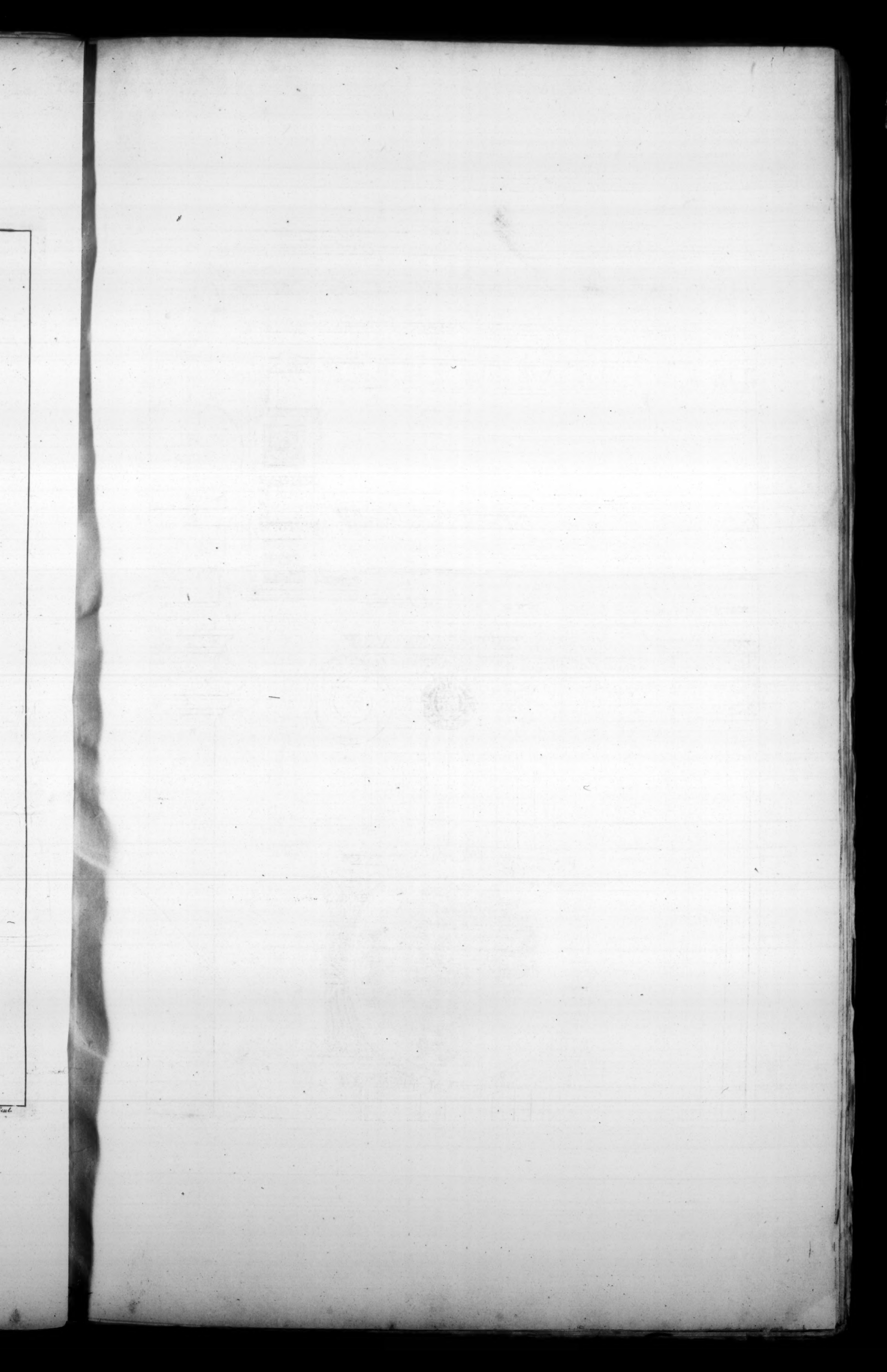




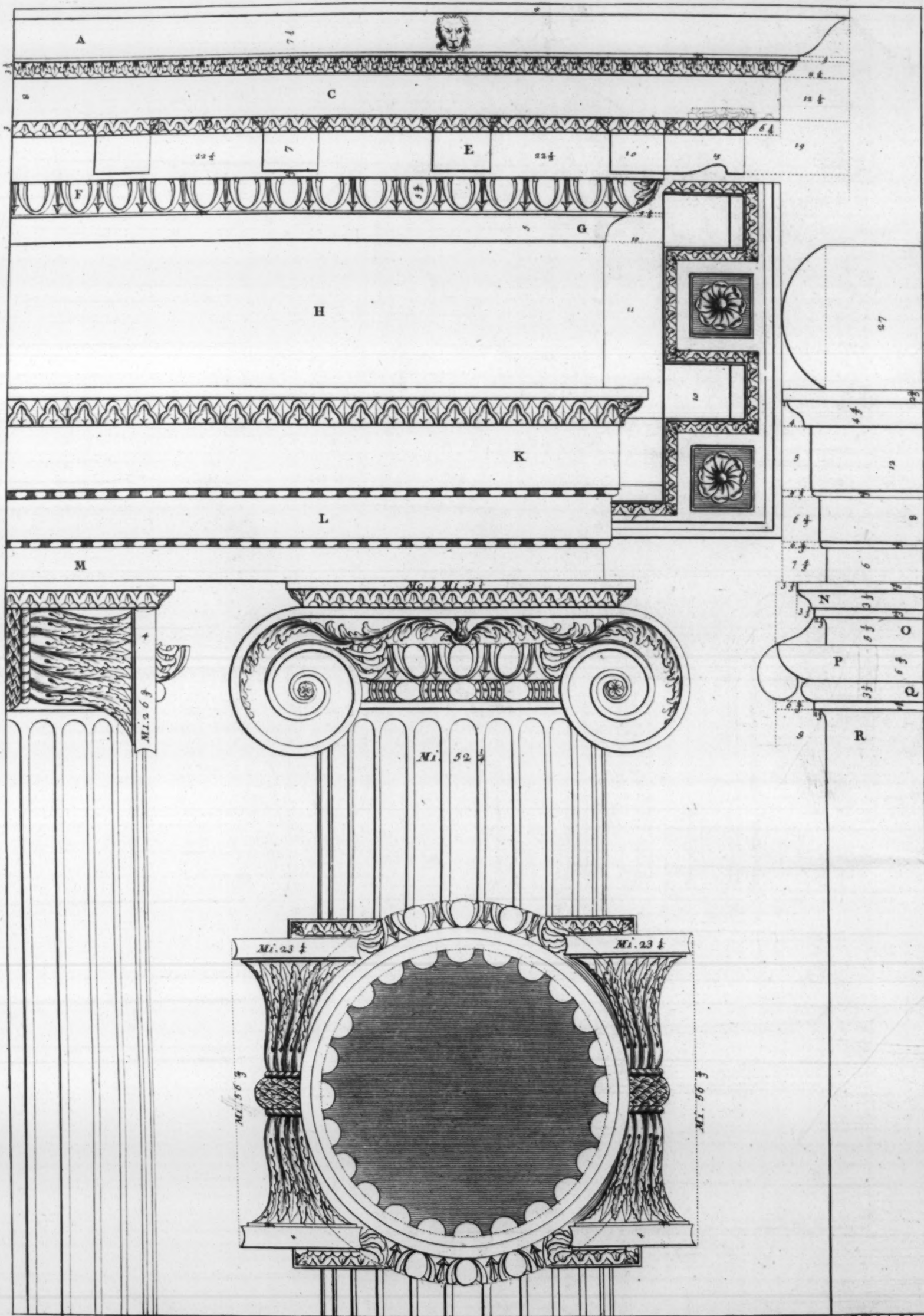














D. *Astragal under the Echinus or Ovolo.*

E. *Cincture, or Annulet, or Listella.*

F. *Part of the Body of the Column.*

G. *A Line call'd Catheta.*

The Plate XXI. represents the *Ionick Base* according to *Vitruvius*, together with the *Eye of the Voluta* upon a large Scale, marked S.

Members of the *Base* according to *Vitruvius*.

K. *Part of the Body of the Column.*

L. *Cincture, or Annulet.*

M. *Torus.*

N. *First Scotia.*

O. *Astragal.*

P. *Second Scotia.*

Q. *Orlo, or Plinth.*

R. *Projecture of the Base.*

\* The *Architrave, Frize and Cornice* have, as I said before, the fifth part of the height of the *Column*; and the whole is divided into 12 parts. The *Architrave* has four, the *Frize* three, and the *Cornice* five. The *Architrave* is subdivided into five parts; of one is made its *Cimafium*, and the rest is subdivided again into twelve: for the first *Fascia* and its *Astragal* three, to the second and its *Astragal* four, and to the third five.

The *Cornice* is divided into  $7\frac{3}{4}$  parts; two are given to the *Scotia*, or *Cavetto* and *Ovolo*; two to the *Modillions*, and the rest to the *Corona* and *Cimafium*. The whole *Cornice* projects as much as its height.

I have drawn the *Front*, the *Flank*, and the *Plan* of the *Capitel*; and the *Architrave, Frize and Cornice*, with their proper *Ornaments*.

A. *Cimafium, or Cima recta.*

B. *Cima reversa.*

C. *Corona.*

D. *Cimafium of the Modillions.*

E. *Modillions.*

F. *Ovolo.*

G. *Cavetto.*

H. *Frize.*

I. *Cimafium of the Architrave.*

K. *First Fascia.*

L. *Second Fascia.*

M. *Third Fascia.*



Members of the *Capitel*.N. *Abacus*.O. *Channel, or hollow of the Voluta*.P. *Ovolo, or Echinus*.Q. *Astragal of the Column*.R. *Part of the Body of the Column*.

The *Plan* mark'd S, represents the *Soffite*, or the underneath of the *Corona* between each *Modilion*.



## C H A P. XVII.

## Of the CORINTHIAN Order.



T *Corinth*, a most famous City of *Peloponnesus*, now the *Morea*, was invented the Order from thence call'd *Corinthian*, and which is more gentile, rich, and beautiful, than any of those I have yet discours'd upon. The Columns are like those of the *Ionick* Order; and, with the *Base* and *Capitel*, they are nine *Modules* and a half high. If they are *fluted* they must have 24 *Flutes* or *Channels*, which are to be half as deep as they are broad. The *Plans*, or *Spaces*, between one *Flute* and the other, must be a third part of the breadth of the said *Flutes*. The *Architrave*, *Frize*, and *Cornice*, are a fifth part of the height of the Columns. In the design of a *Colonnade*, or single Columns, the *Inter-columns* are two diameters, as in the *Portico* of *St. Maria Rotunda* at *Rome*; and this manner of *distancing* the Columns is, by *Vitruvius*, call'd *Systylos*.

† In that of *Arches*, the *Pilasters* have two fifths of the breadth of the *Arch*, which breadth or void is in height two squares and a half, the thickness of the said *Arch* being comprehended.

\*\* The *Pedestal* under the *Corinthian* Column, must have in height the fourth part of the length of the Column, and being divided into eight parts, one is given to the *Cimafium*, two to the *Base*, and five to the *Dye* or *Square*. The *Base* must be divided into three parts, two for the *Zocco*, or *Plinth*; and one to the *Moulding*.

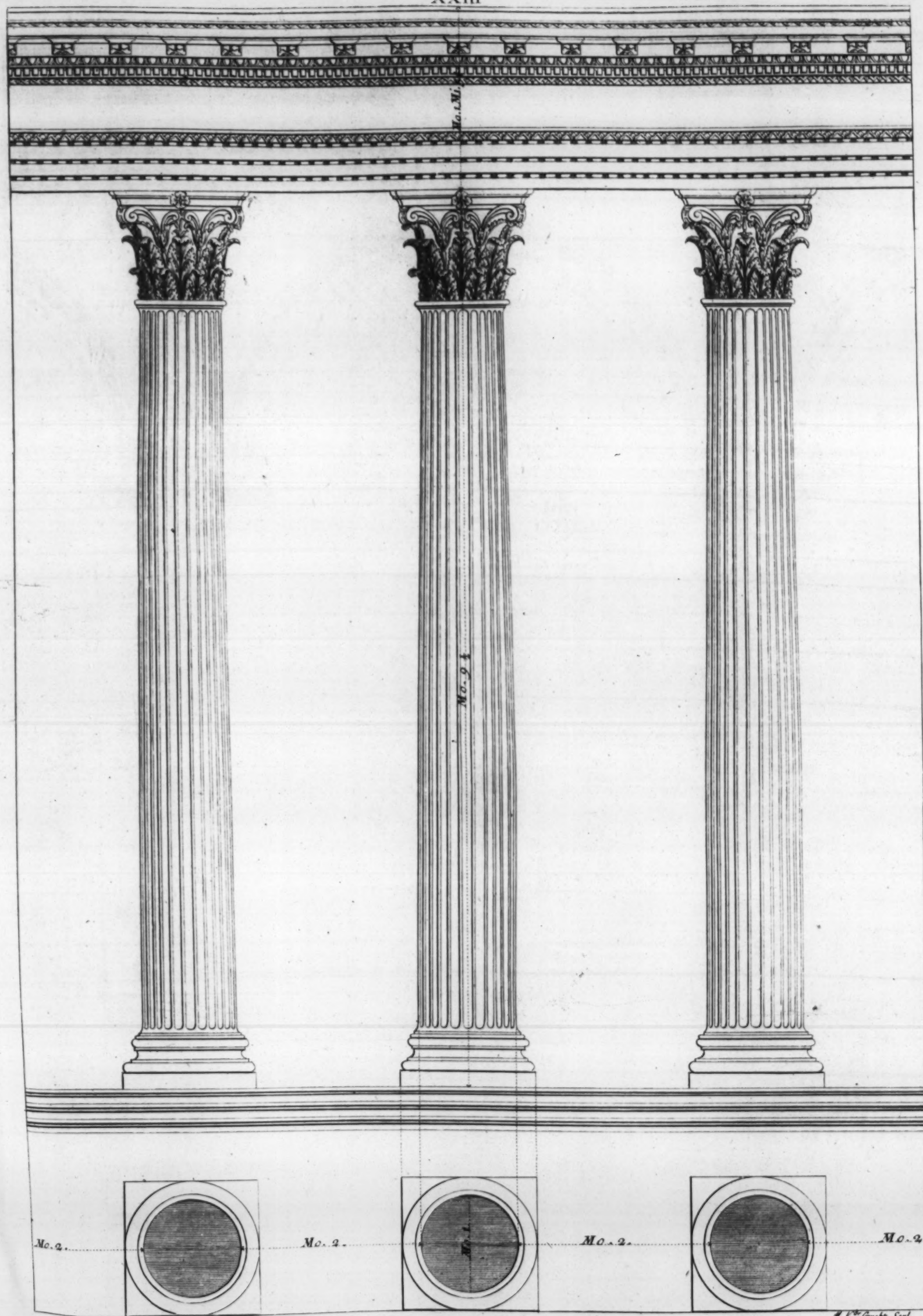
The common *Base* of this Column is the *Attick*; but yet it differs from that which is put to the *Dorick* Order; for in this the *projecture* is the fifth part of the diameter of the Column; whereas in the *Dorick* it is the sixth part. It may also vary in some other

\* Plate XXIII.

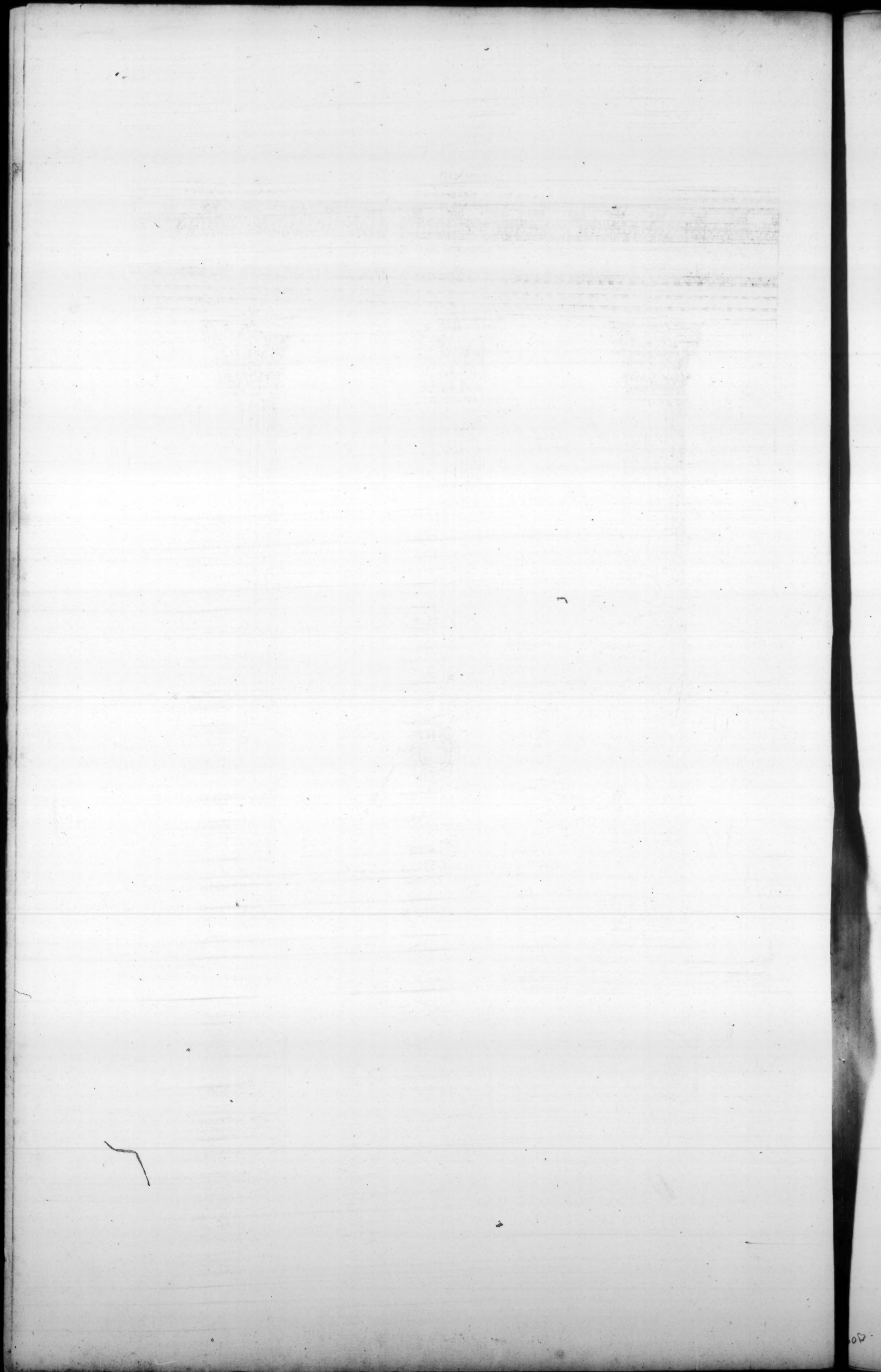
† Plate XXIV.

\*\* Plate XXV.

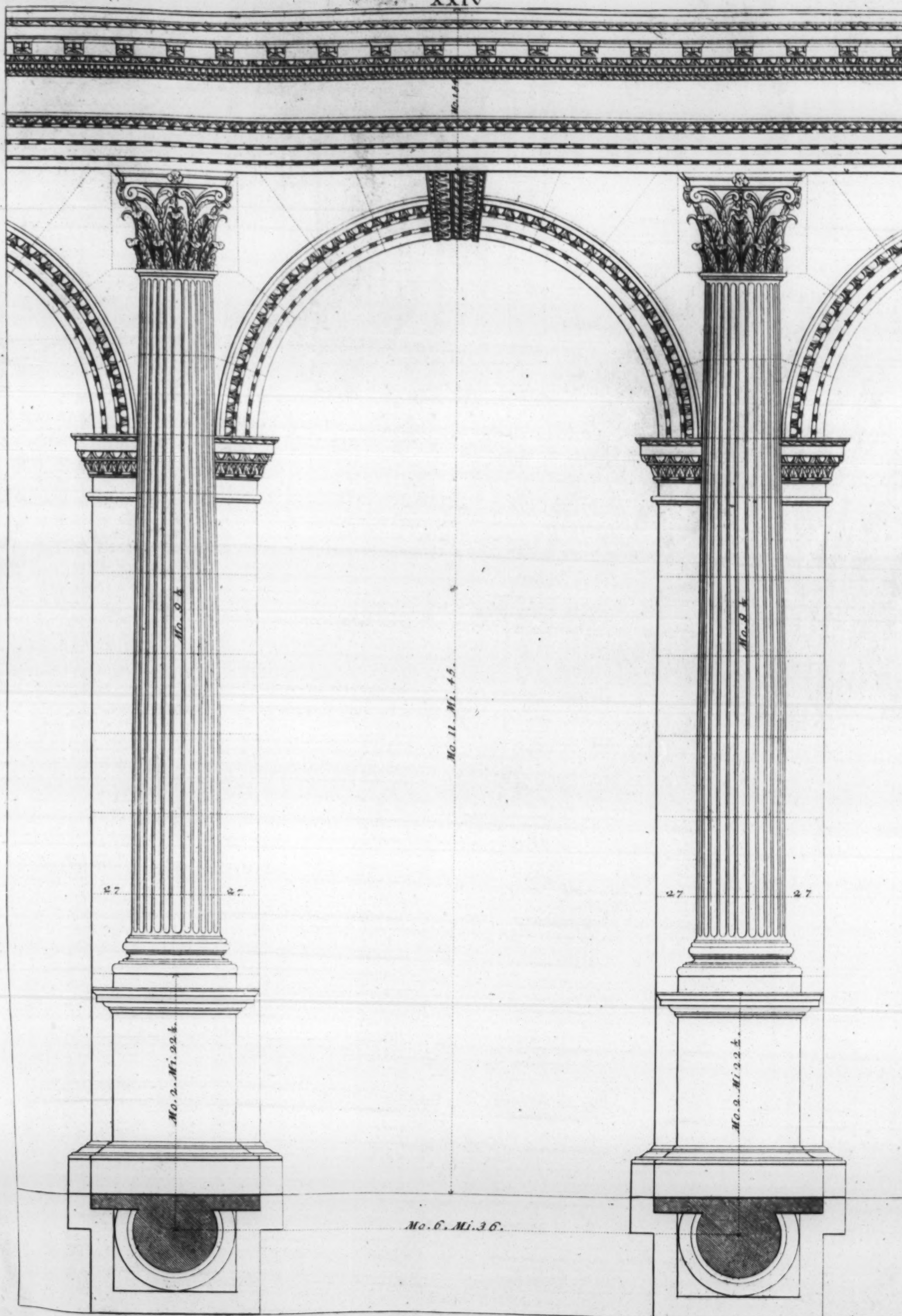






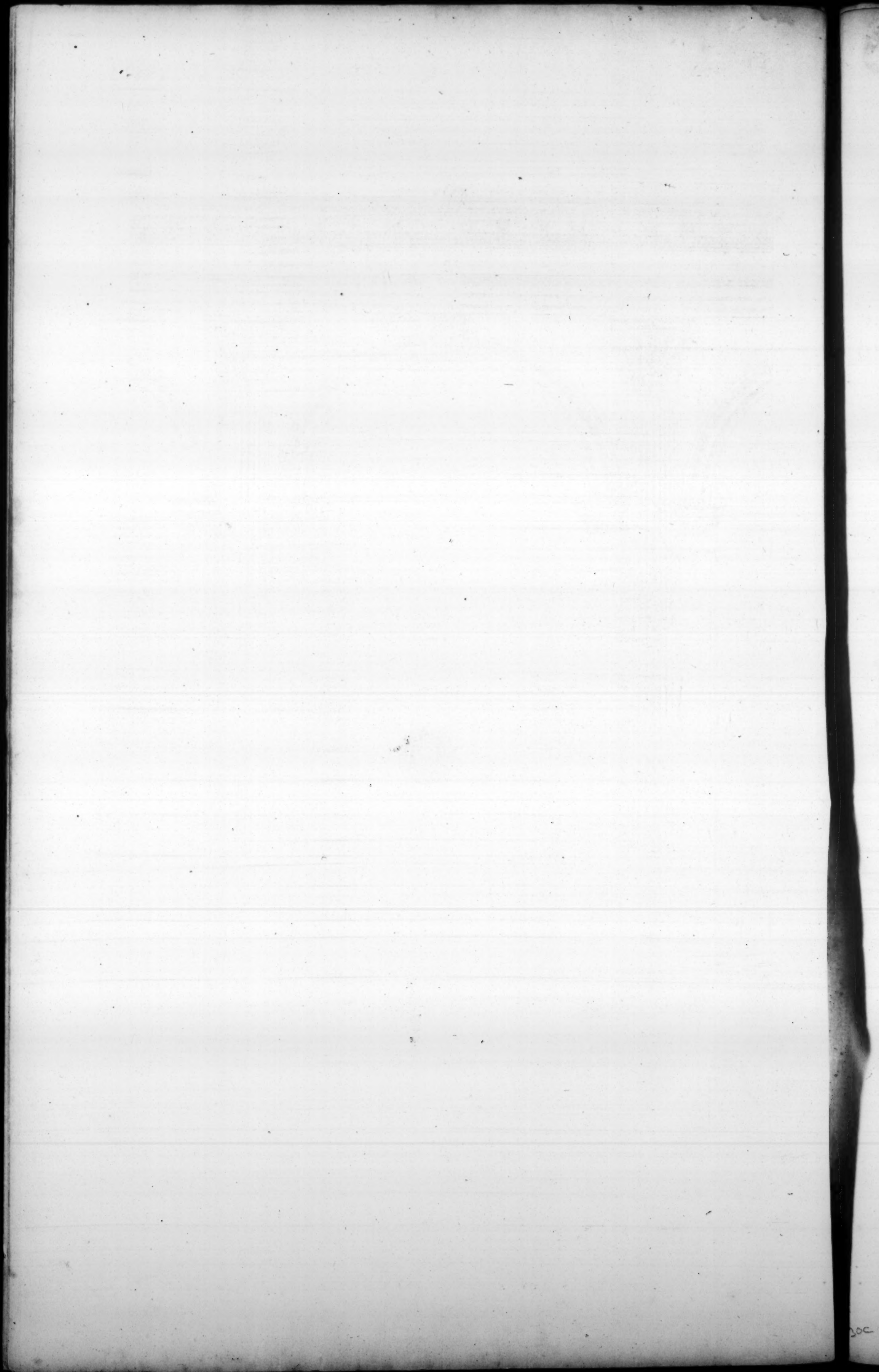






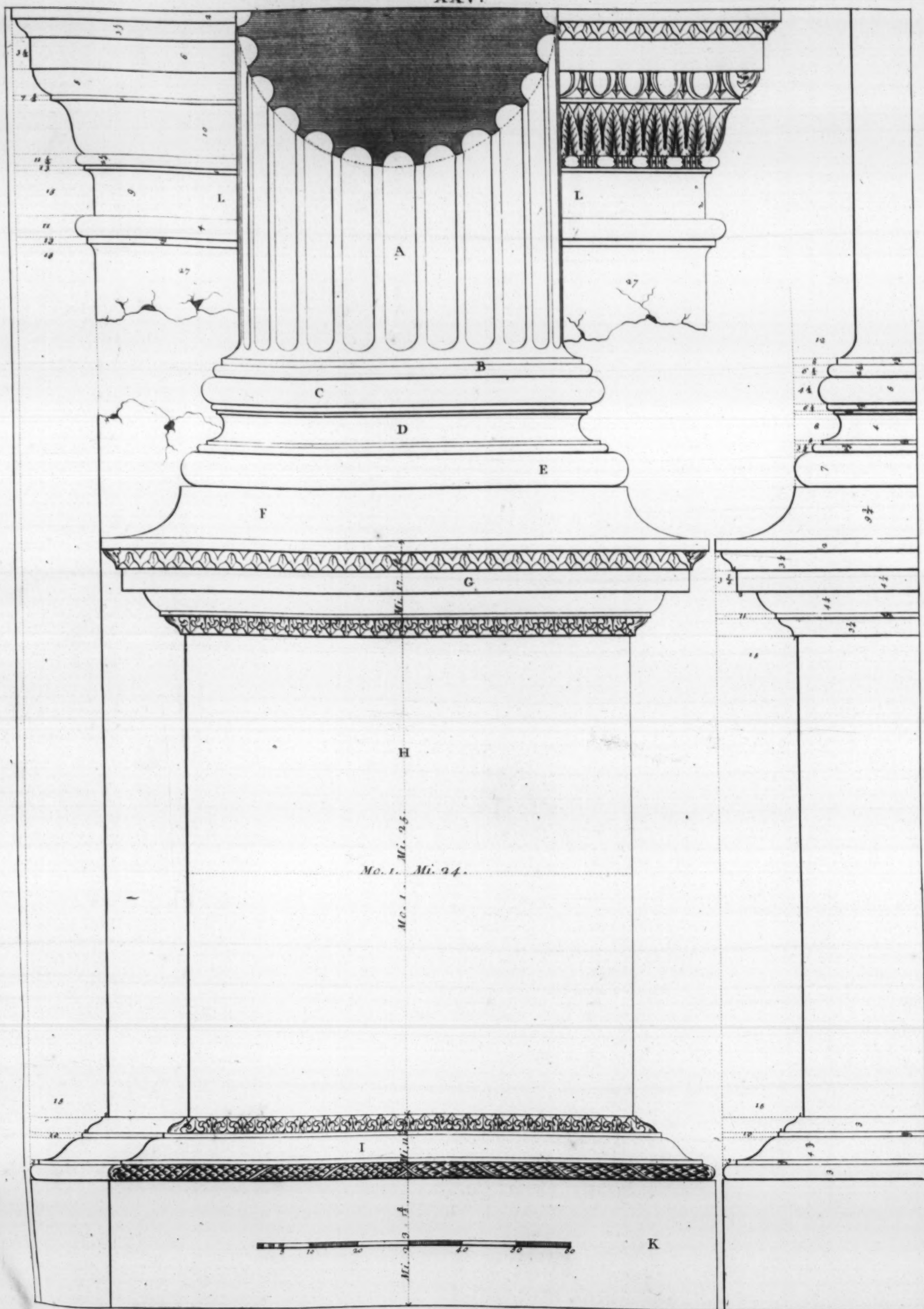
H. V. Gucke Saul.







XXV.

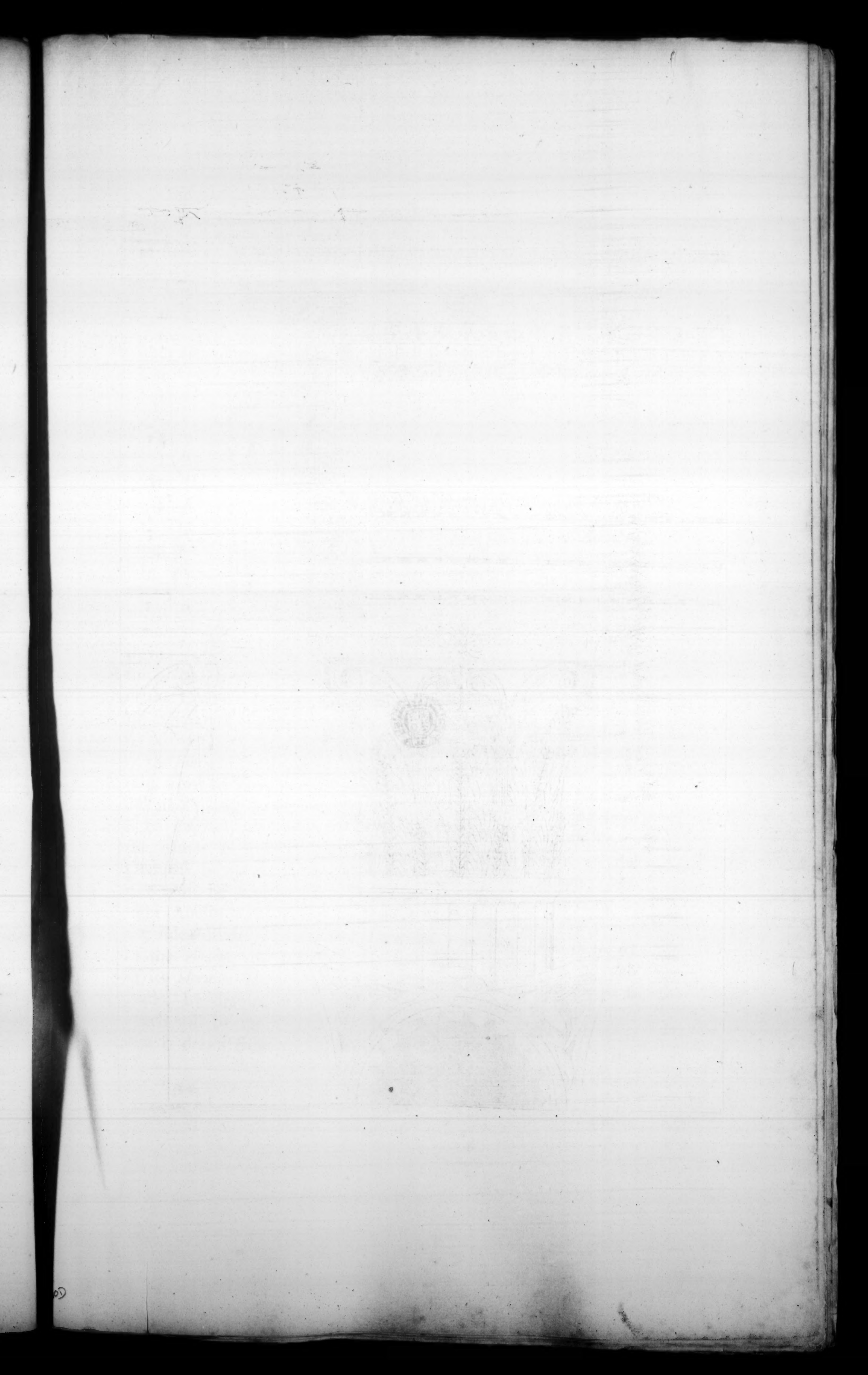




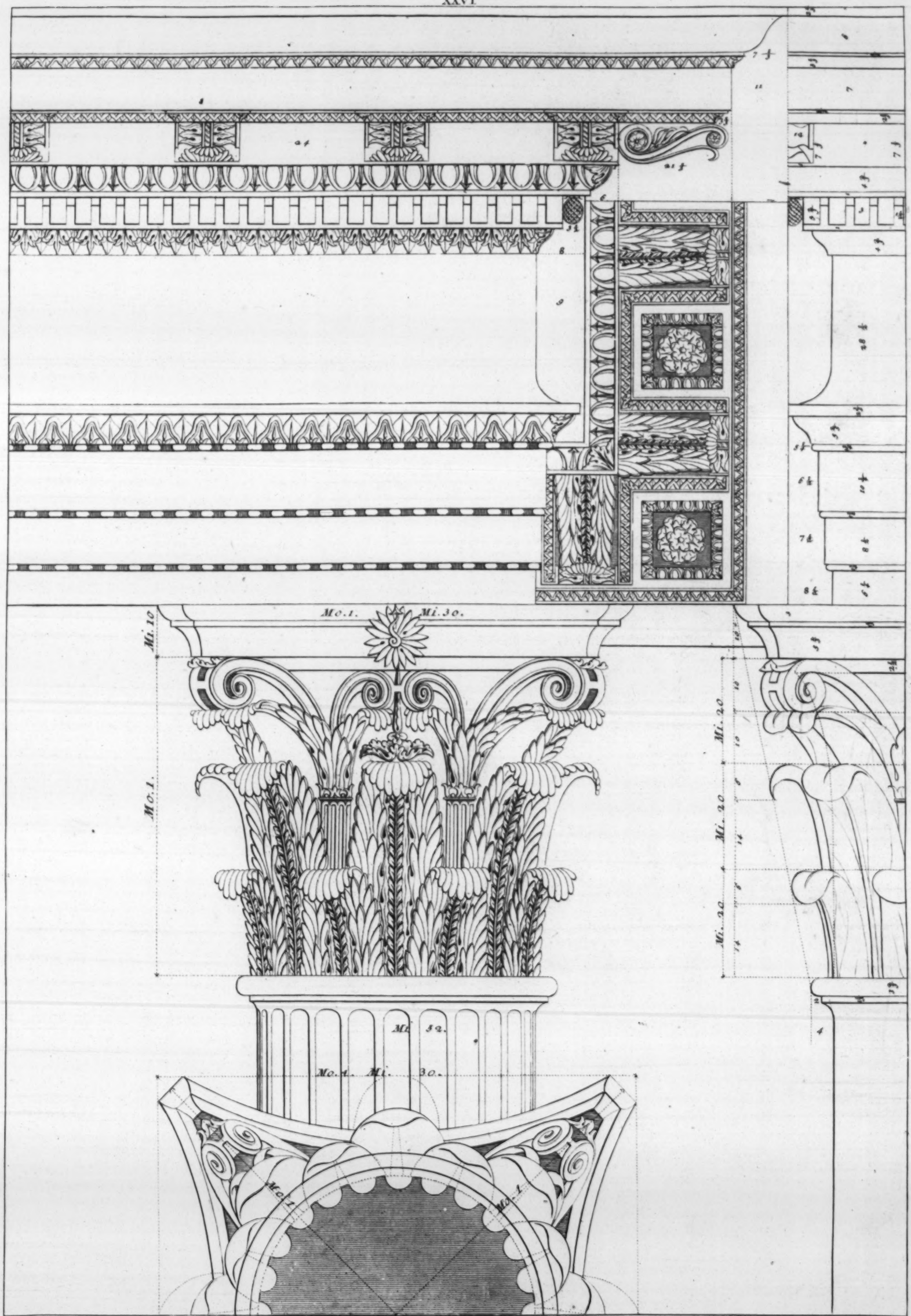
1877

| DATE   | DESCRIPTION         | AMOUNT  |
|--------|---------------------|---------|
| Jan 1  | Balance             | 100.00  |
| Jan 15 | Received from A. B. | 50.00   |
| Feb 1  | Received from C. D. | 25.00   |
| Feb 15 | Received from E. F. | 75.00   |
| Mar 1  | Received from G. H. | 100.00  |
| Mar 15 | Received from I. J. | 50.00   |
| Apr 1  | Received from K. L. | 25.00   |
| Apr 15 | Received from M. N. | 75.00   |
| May 1  | Received from O. P. | 100.00  |
| May 15 | Received from Q. R. | 50.00   |
| Jun 1  | Received from S. T. | 25.00   |
| Jun 15 | Received from U. V. | 75.00   |
| Jul 1  | Received from W. X. | 100.00  |
| Jul 15 | Received from Y. Z. | 50.00   |
| Aug 1  | Received from A. B. | 25.00   |
| Aug 15 | Received from C. D. | 75.00   |
| Sep 1  | Received from E. F. | 100.00  |
| Sep 15 | Received from G. H. | 50.00   |
| Oct 1  | Received from I. J. | 25.00   |
| Oct 15 | Received from K. L. | 75.00   |
| Nov 1  | Received from M. N. | 100.00  |
| Nov 15 | Received from O. P. | 50.00   |
| Dec 1  | Received from Q. R. | 25.00   |
| Dec 15 | Received from S. T. | 75.00   |
| Total  |                     | 2000.00 |











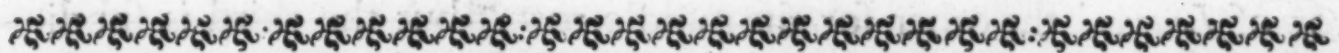
parts, as it appears by the Design, where I have *profil'd* the *Imposts* of the Arches, the height of which is double of the *Membretto*, or *Half-pilaster* which bears up the *Arch*.

- A. *Part of the Column.*
  - B. *Cincture, or Astragal of the Column.*
  - C. *Upper Torus.*
  - D. *Cavetto, or Scotia, with its Astragals.*
  - E. *Lower Torus.*
  - F. *Orlo, or Plinth of the Base, join'd to the Cimasium of the Pedestal.*
  - G. *Cimasium*
  - H. *Dado, or Dye, or Square*
  - I. *Moulding of the Base*
  - K. *Orlo, or Plinth of the Base*
  - L. *The Impost of the Arch.*
- } of the Pedestal.

\* The height of the *Corinthian Capitel* takes a diameter of the *Column* below, and a sixth part more, which is allow'd to the *Abacus*. The rest is divided into three equal parts. One is for the lowermost row of *Leaves*, the other for the middle row; but the third is subdivided into two, and of that part next to the *Abacus* are made the *Cauliculi*, or *Stalks*, with their *Leaves*, which seem to be supported by them; and therefore the *Stalk* from whence they grow, must be made thick, but they in their *foldings* must diminish by degrees; following in that Example of the *Plants*, which are thicker at the bottom than at the extremities of their *Branches*. The *Bell* which is the inward body of the *Capitel* under the *Leaves*, ought to be *plum* with the bottom of the *Flutes* of the *Column*. To give the *Abacus* a convenient *projecture*, a perfect square must be made, each side whereof is to be a *module* and a half, and the diagonal lines being drawn from one angle of it to another, the point of their intersection in the middle, is the center of the said square; on which the fix'd foot of the *Compass* being plac'd, towards each Angle of the square a *module* must be mark'd, where lines must be drawn intersecting at right Angles with the said diagonal Lines, that they may touch the sides of the Square. These are the bounds of the *projecture* of the *Abacus*, the length of the said Lines, giving the breadth of its *Horns*. The *Curvilineal-side*, or diminution of the *Abacus* is made, by drawing a circular line from one horn to the other, which will be the *Base* of an *equilateral triangle*. Then a strait line is drawn from the extremities of the said *horns* to the extre-

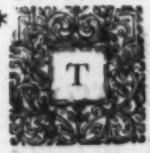


mities of the *Astragal* of the Column, which Line the *Tongues* of the *Leaves* must seem to touch, or rather pass a little outwards, and so they have a full *projecture*. The *Rose* is to be as broad as the fourth part of the diameter of the Column at the foot. The *Architrave*, *Frize* and *Cornice* (as I have said before) are to be a fifth part of the height of the Column, and the whole is to be divided into 12 parts, as in the *Ionick* Column: with this difference however, that the *Cornice* of the *Corinthian* is divided into eight parts and a half, one of which is given to the *Cima reversa*, and another to the *Denticuli*, the third to the *Ovolo*, the fourth and fifth to the *Modillions*, and the other three and a half to the *Corona* and *Cima*. The *Cornice* has as much *projecture* as it has height. The *Pannels* of the *Roses*, between the *Modillions*, must be square; and the *Modillions* as big as half the *Plan* of the said *Roses*. The Members of this Order have not been mark'd with Letters, as the foregoing, because by them these may be easily understood.



## C H A P. XVIII.

### *Of the COMPOSITE Order.*

\*  HE *Composite* Order (which is also nam'd *Roman*, as being an Invention of the antient *Romans*) is so call'd, because it partakes of all the aforesaid Orders; and the most regular and beautiful is that which is compounded of the *Ionick* and *Corinthian*. • It is more slender than the *Corinthian*, and may be made like it in all its parts, except in the *Capitel*.

The Columns ought to be 10 *Modules* high. In the Designs of Columns, or single *Collonades*, the *Inter-columns* are but of one diameter and a half: and in this manner is call'd by *Vitruvius*, *Picnostylos*.

† In those of *Arches*, the *pilasters* are to be half of the breadth, or void of the *Arch*, which is to be under the *Keystone* two *squares* and a half high; that is to say, two diameters and a half of the *Arch*.

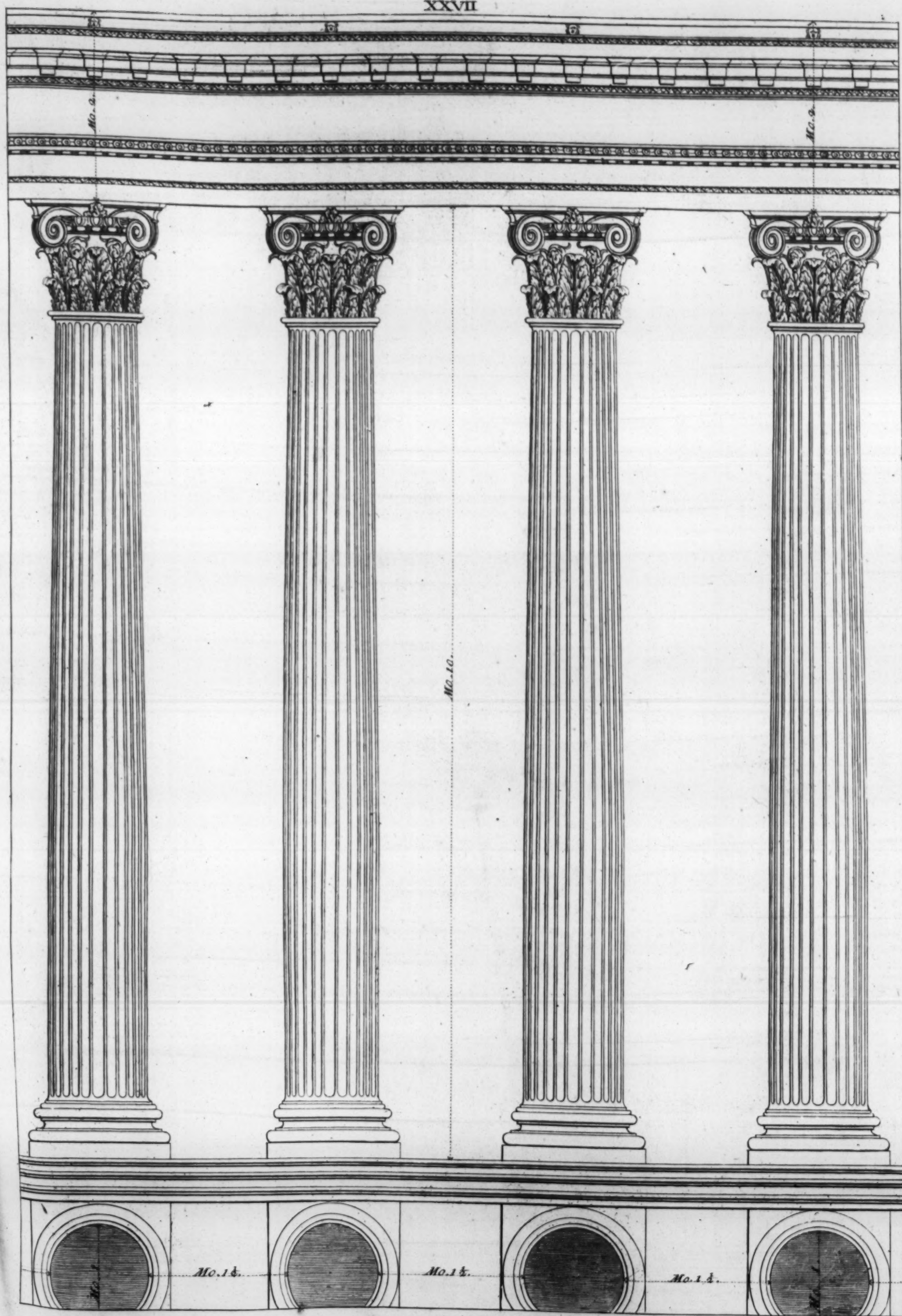
\*\* And because (as I have said) this Order is more slender than the *Corinthian*, its *Pedestal* must be the third part of the height of the Column; which being divided into eight parts and a half, of one part is made the *Cimasum* of the said *Base*, five and a

\* Plate XXVII.

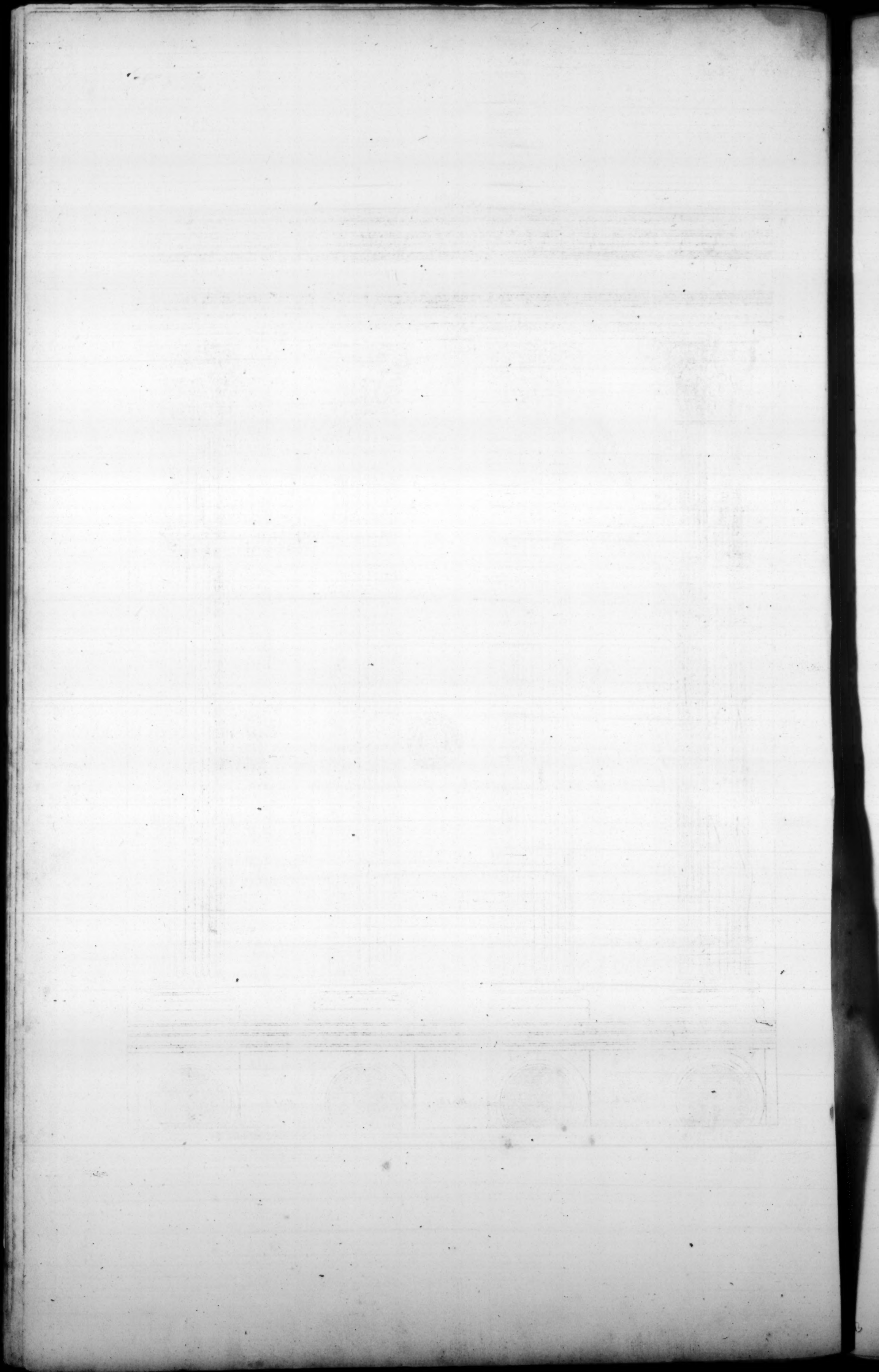
† Plate XXVIII.

\* Plate XXIX.





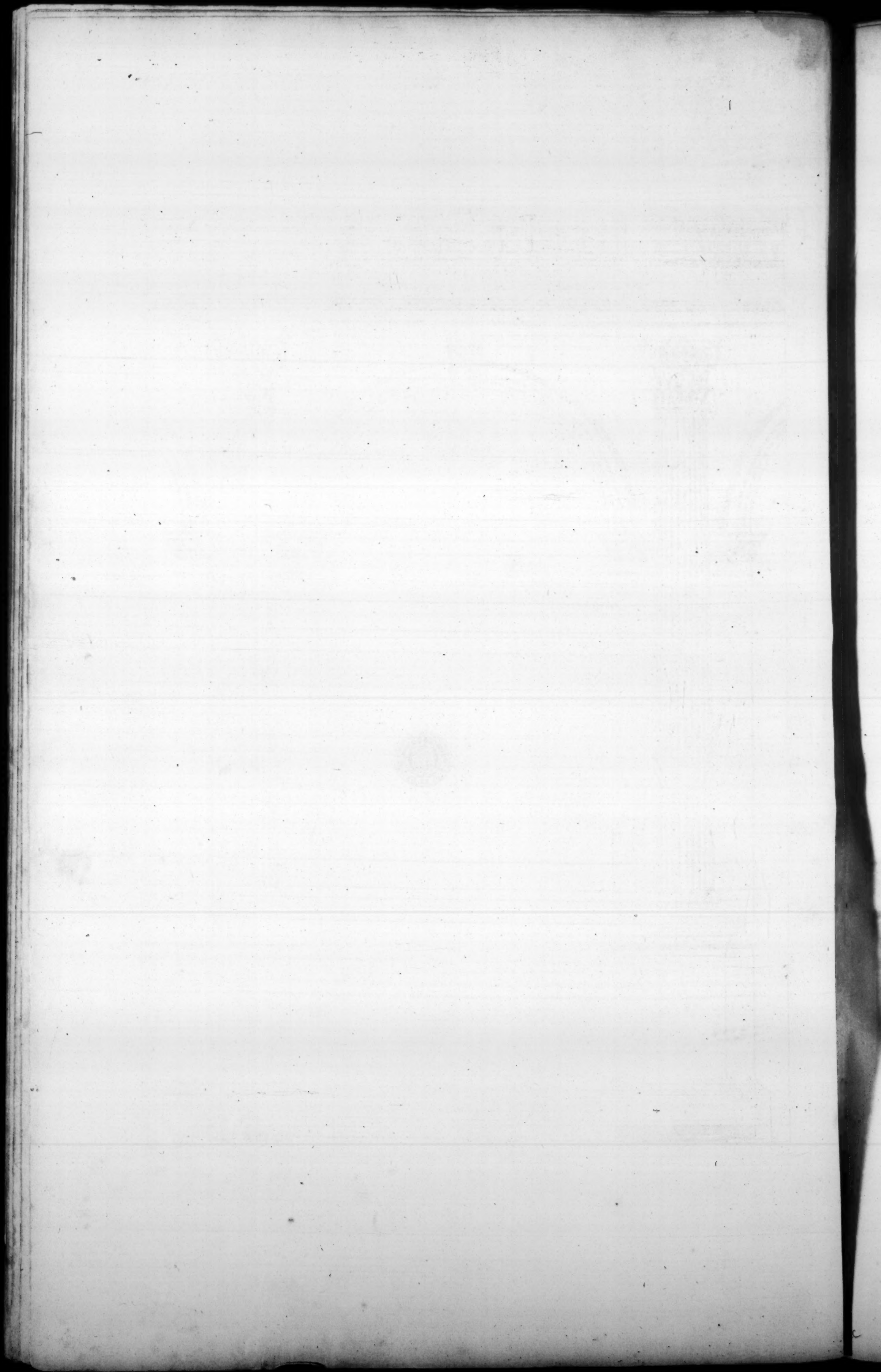








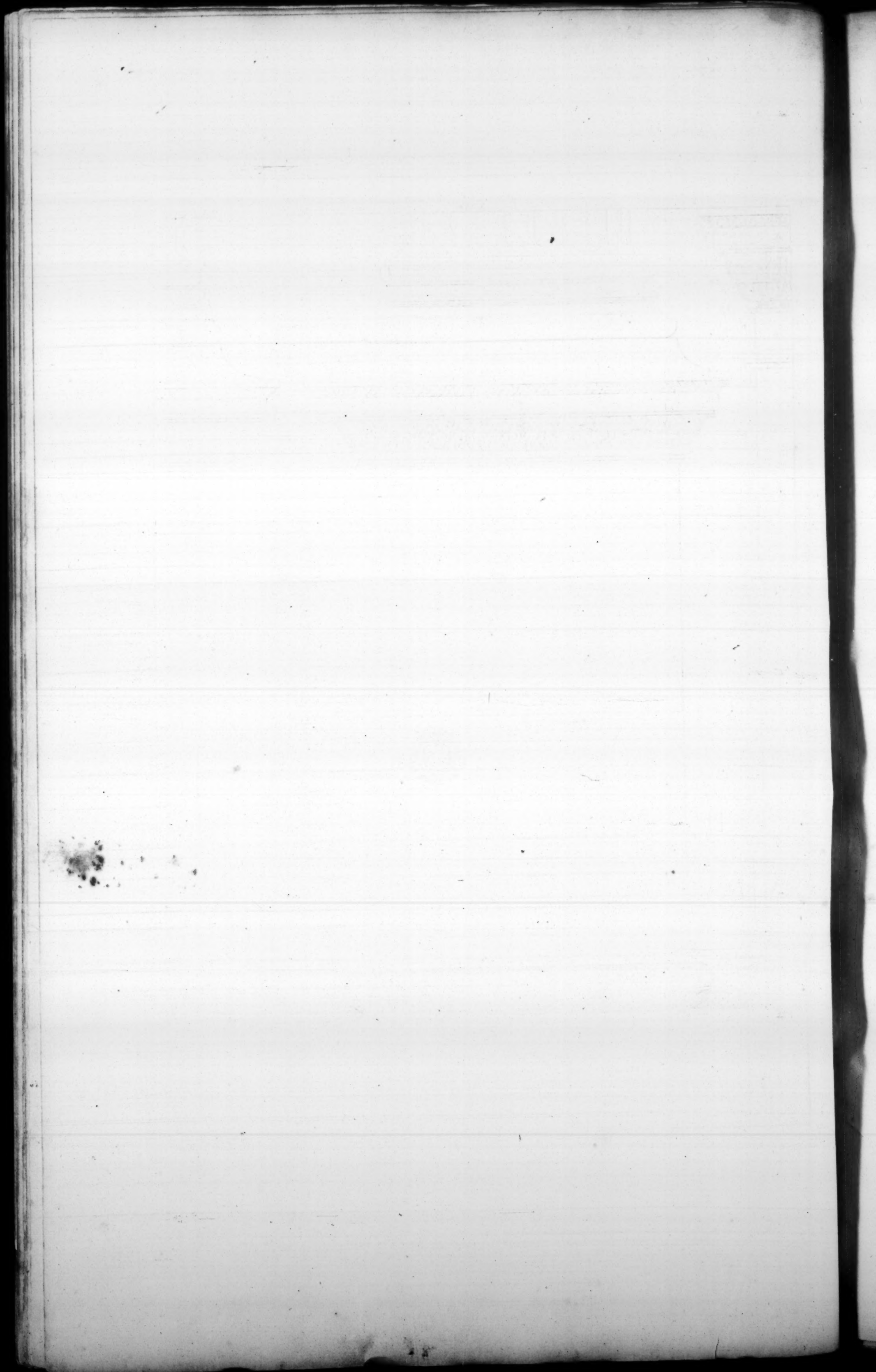




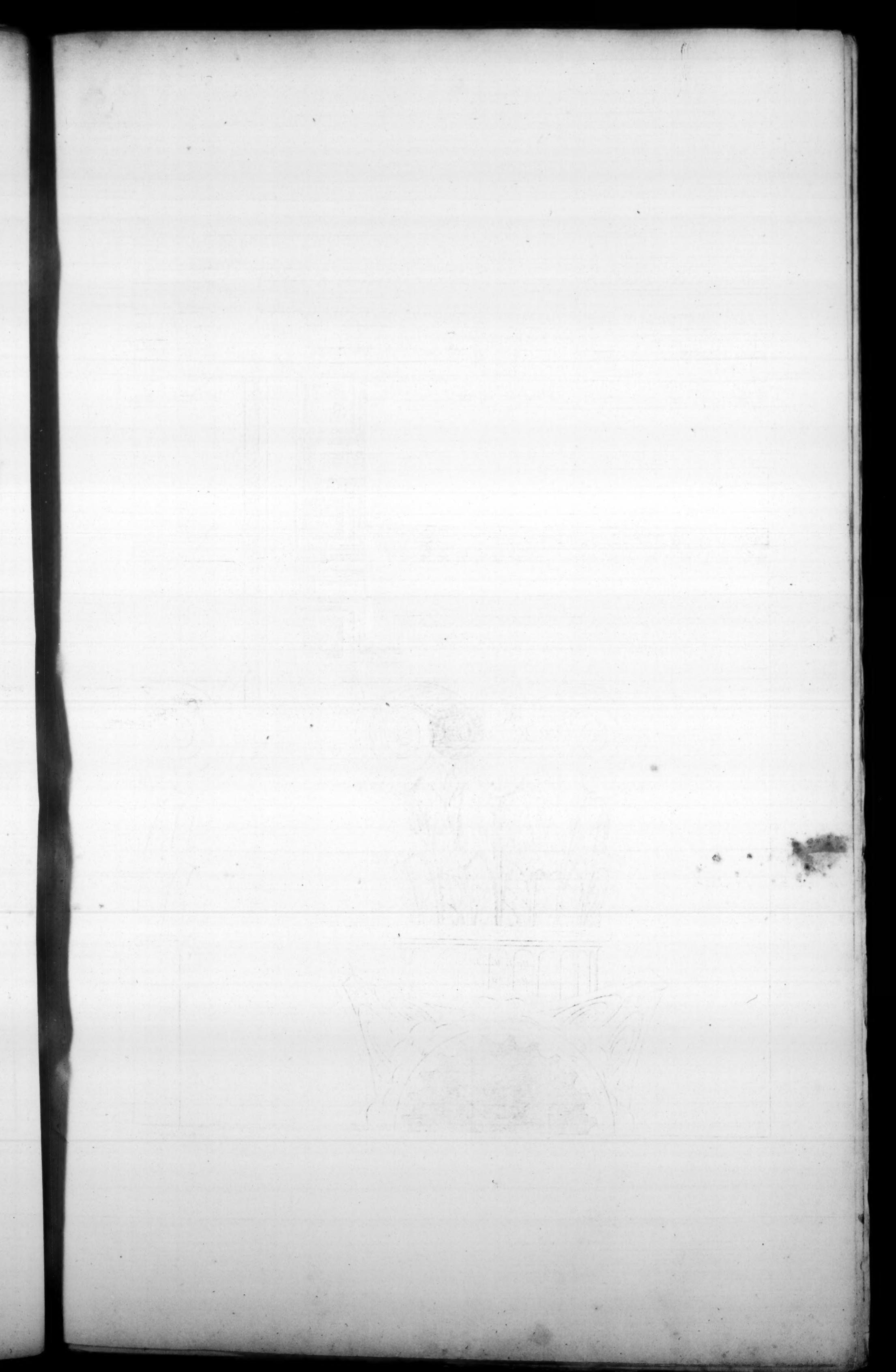


















half for the *Dado*; the two others for the *Base*, which being subdivided into three, two will make the *Zocco*, or *Plinth*; and the third for the *Torus* and *Cima*.

The *Base* of the Column may be made *Attick*, as in the *Corinthian*; and it may be also compounded of the *Attick* and the *Ionick*, as appears by the Design.

The *Imposts* of the Arches are profil'd by the side of the *Pedestal*; and its height is equal to the diameter of the *Membretto*, or half *Pilafter*.

A. *Impost of the Arch.*

\* The *Capitel* of the *Composite* Order has the same measures as that of the *Corinthian*; but it differs from it in the *Voluta*, *Ovolo*, and *Fusarolo*, or *Fuse*, which are Members of the *Ionick Capitel*. The way of making it is thus. From the *Abacus* downward, the *Capitel* is divided into three parts, as in the *Corinthian*. The first is given to the first row of *Leaves*, the second and the third to the *Voluta*, which is made in the same manner, and with the same points as that of the *Ionick*. It takes up so much of the *Abacus*, that it seems to go out of the *Ovolo*, at the foot of the *Flower* which is put in the middle of the circular side of the *Abacus*; and it is as thick in the front, as the breadth of the *Horns* thereof, and a little more. The *Ovolo* is as big as three parts of five of the *Abacus*, and its lower part, that is its *Fuse*, ought to be parallel with the *Eye* of the *Voluta*. It has in its *projecture*  $\frac{3}{4}$  of its height, and is with its *projecture*, perpendicular to the hollow of the *Abacus*, or a little more outwards. The *Fuse* is a third part of the height of the *Ovolo*, and has in its *projecture* something more than the half of its thickness. It turns about the *Capitel* under the *Voluta*, and is always seen. The *Listel*, which is under the *Fuse*, and makes the edges of the *Bell* of the *Capitel*, is the half of the *Fuse*. The body of the *Bell* ought to be *plum* with the bottom of the *Flutes* of the Column. I have seen one of this sort at *Rome*, from which I have drawn all these measures, because it appear'd to me very beautiful and well contriv'd.

There are *Capitels* to be seen made after another manner, and which may be call'd *Composite*; of which I propose to speak, and to insert the Designs of them in my Book of *Antiquities*. The *Architrave*, *Frize*, and *Cornice*, have the fifth part of the height of the Column; and it will be very easy to know their different division, or distribution, by that which has been said before in the other Orders, and by the Numbers I have plac'd in the Designs.

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\* *Placè* XXX.



## C H A P. XIX. Of PEDESTALS.

**H** I T H E R T O I have discours'd, as much as to me seem'd necessary to be known, concerning simple Walls and their Ornaments; and in particular I have touch'd upon the *Pedestals*, which may be applied to every Order. But because it appears that the Antients have not had this regard to make the *Pedestals* bigger for one Order than for another, altho this part much adds to the beauty and ornament of the work, when it is made with discretion and due proportion to the other parts: to the end nevertheless, that the Architects may get a full knowledge of these, and make a right use of them upon occasion, they must take notice that the Antients made them sometimes square, that is to say as long as broad, as may be seen in the *Arch* call'd *di Lioni* at *Verona*; and these I have assign'd to the *Dorick* Order, because it requires more solidity. Sometimes they took their measure in making of them from the diameter of the void of the *Arch*, as in the *Arch* of *Titus* at *Sancta Maria Nova* at *Rome*, and that of *Trajan* over the Gate of *Antona*, where the *Pedestal* is half the height of the opening of the *Arch*; and of this kind of *Pedestals* I have put to the *Ionick* Order. Sometimes they took their measure from the height of the Column, as is seen at *Susa*, a City situated at the foot of the Mountains which divide *Italy* from *France*, in an *Arch* erected to the honour of *Augustus Caesar*: and in the *Arch* of *Pola*, a City of *Dalmatia*, and also in the *Amphitheatre* of *Rome* in the *Ionick* and *Corinthian* Orders: in which Buildings the *Pedestal* is the fourth part of the height of the Column, as I have made it in the *Corinthian* Order. In *Verona*, in the *Arch* call'd *di Castel vecchio*, which is very beautiful, the *Pedestal* is a third of the height of the Column, as I have order'd it in the *Composite* Order. All these forms of *Pedestals* are most beautiful, and have most elegant proportions with the other parts to which they belong. And when *Vitruvius*, discoursing of Theatres, makes mention of the *Poggio*, one must know, that by that word he means the *Pedestal* to which he gives the third part of the Columns with which he adorns the Scenes. But of *Pedestals* which exceed a third part of the Column, we have an Example at *Rome* in the *Arch* of *Constantine*, where the

Pedestals



Pedestals have one of two parts and a half of the height of the Column. And almost in all the antient Pedestals 'tis to be observ'd, that the Bases have the double of the *Cimafium*, as I shall demonstrate in my Book of *Arches*.

## CH A P. XX.

### *Of the Errors and Abuses introduc'd into Architecture.*

**H**AVING set down all those Ornaments of *Architecture* which consist in the right use of the five Orders, and having shewn how they ought to be made by drawing the *Profils* of each of their parts, according as I found that the Antients did practise; it seems to me not unfit here, to inform the Reader of many abuses, which having been formerly introduc'd by *Barbarians*, are observ'd even to this day; and this I do to the end, that the Studious in this Art may avoid them in their own Works, and be able to take notice of them in those of others. I say then, that *Architecture* (as all the other Arts) being grounded upon Rules taken from the imitation of Nature, admits of nothing that is contrary, or foreign to that Order which Nature has prescrib'd to all things. Wherefore we see that the Antient Architects, who begun to alter their Timber-Buildings, and to make them with Stones, kept their Columns less at the top than at the foot, taking example from Trees, all which are less at the top than in the Trunk, and towards the Roots: likewise, because it is very natural that those things upon which any great weight is laid, should be press'd, under the Column they did put a *Base*, which by its *Torus*, *Carveto*, and *Astragal*, seems to represent a swelling caus'd by the burden over it. So they brought in the *Cornices*, *Triglyphs*, *Modillions*, and *Dentils*, to represent the heads of the Joysts, which in the Ceiling are plac'd to bear up the Roof. The same may be observ'd in all other parts, if one is curious to examine them. And this being so, what shall we say of that form of Building, which is so contrary to what Nature has taught us, that it deviates from that Simplicity which is visible in things by her produc'd, and departs from all that is good, or true, or agreeable in the way of Building: for which reason, instead of Columns, or Pilasters, which are contriv'd to bear a great weight, one ought not to place those Modern Ornaments call'd *Car-*  
*tooshes,*



*toothes*, which are certain *Scroles* that are but an eye-sore to the Artists, and give others only a confused Idea of *Architecture*, without any pleasure or satisfaction; nor indeed do they produce any other effect than to increase the Expences of the Builder. For the same reason these *Cartooshes* ought never to come out of the *Cornice*; for it is requisite that all the Members of it should be made to some end, and to show what it would be, if all the work had been fram'd of Timber. Besides that, as it is requisite to uphold a great weight with something solid, and fit to support it: so such non-sensical things, as *Cartooshes*, are altogether superfluous, because it is impossible that the Joists, or any other Timber whatsoever, could really perform what these represent; and since they are feign'd to be soft and weak, I know not by what rule they can be put under any thing heavy and hard. But of all Abuses, in my opinion the most intolerable is, the making certain frontons of Doors, or Windows, or Galleries, divided in the middle: because these frontons were contriv'd at first to defend those parts from Rain, necessity having taught our first Architects to give them the form of a Roof; so that I know nothing more contrary to natural Reason, than to divide and open that part which the Antients did make whole, in order to defend the Inhabitants of the House, and those that enter into the same, from Rain, Snow, Hail, and other injuries of the Air: and altho variety and novelty should please all, yet we are not to go against the precepts of Art, and that which Reason demonstrates; whence we see that the Antients in their several Contrivances have never departed from the general and necessary Rules of Art or Nature, as may be seen in my Book of *Antiquities*. As for the *projecture* of the *Cornice*, and other Ornaments, 'tis not a small abuse to make it too great; because when these *Projectures* exceed their just measure, especially if the Building is in a close place, it appears the narrower and more uncomely, as well as always frightening those which stand underneath, as if it would fall upon them. One ought also carefully to avoid making the *Cornice* disproportionable to the Columns; for 'tis certain that putting great *Cornices* upon little Columns, or upon great Columns little *Cornices*, must needs make a very sad Aspect. Again, those sorts of Columns, which are feign'd to be made of several pieces, and jointed together by the means of certain *Rings*, or *Annulets*, in the form of a Rustick, ought also to be no less carefully avoided; because how much the



the more entire and strong the Columns appear, so much the more they perform the design for which they are plac'd, which is to render the Work above more secure and firm. Many other the like abuses might be reckon'd up, as of some Members which in the *Cornices* are made disproportionable to the rest, as by what I have shewn before, and by what is now said, may be easily known. It remains now to come to the disposing of the particular and principal parts of a Building.



## C H A P. XXI.

### *Of Galleries, Entries, Halls, Antichambers, Chambers, and of their several proportions.*

**G**ALLERIES are commonly made in the fore, or back Front of a House; or if only one is intended, it must be in the middle: if two, they are to be plac'd in the Wings. They serve for many uses, as walking, eating, and other diversions. They are made larger or lesser, according to the greatness and conveniency of the Building; but ordinarily they ought not to have less than 10, nor more than 20 Foot in breadth. Besides this, every well order'd House ought to have in the middle, or chief part, some place with which all the other parts of the House may have an easy Communication. Those places in the ground Story are vulgarly call'd *Entries*, *Lobbies*, or *Passages*; and above they are *Halls*. They serve in a House as publick places. The Entries serve for those who attend, or wait on the Master to salute him, or to do any business with him. Such places are the parts of the House (besides the Galleries) that first present themselves to those that are about to enter the same. The Halls serve for all sorts of ceremonial Feasts, as Weddings, Banquets, Comedies, and such other Pastimes. For this reason, therefore, these places ought to be made much more spacious than others, to the end that many Persons may commodiously be entertain'd therein, and easily see what's a doing. I do observe always to allow for the length of a Hall, no more than the double of its breadth; but the nearer they come to a Square, the more beautiful and convenient they will be.



The Anti-chambers and Chambers ought to be so divided and dispos'd, that they may fall on each side of the Entry and of the Hall, taking care that those on the right hand may exactly answer to those on the left; that so not only one side of the Building be in all things equal to the other, but that the Walls likewise may bear equally the Burden of the Roof: because if the Chambers were on one side larger than on the other, this (considering the closeness of the Walls) would bear more of the weight; and the other, being proportionably weaker, would occasion many inconveniencies, and in process of time the ruin of the whole Fa-brick.

The handsomest and most elegant proportion for Chambers, and which have the best effect, may be taken seven different ways: for they may be made round (which form is very little in use) or square, or they have in length the Diagonal of their square, or a third more than the square, or a square and a half, or a square and two thirds, or two squares full.



## C H A P. XXII.

### Of FLOORS and CIELINGS.

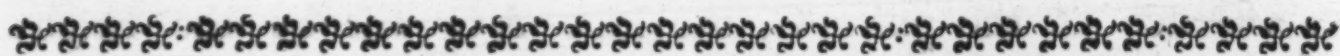
**A**FTER having spoken of the forms of Galleries, Halls, Anti-Chambers, and Chambers, 'tis necessary to say something of Floors and flat Cielings. The superficies of the Floors may be made out of Mortar, as usual in *Venice*, or of square Tyles, or of hard Stone. Those of Mortar or Plaster are very good, when made out of beaten *Cement* and fine Sand, or with River-Pebbles, or *Padoua* Stone-lime; all well mixt together. Such Floors must be made during the Spring, or Summer, that they may dry the better. Brick, or Square Tyle-Pavements are more agreeable to the Eye, because of the many forms into which they may be made, and of the colours they are capable to receive by the divers colours of the Earth they are made with. The Floors of Bed-chambers, or other much frequented Rooms, are seldom made of Marble, or any hard Stone, because in the Winter they would be too cold; but in Galleries, or other publick Places, they will agree well enough.

Care must be taken, that all the Rooms which are of the same Story, may have their Floor or Pavement equal, and in such a man-



manner that the very Thresholds of the Doors may not be higher than the rest. And if any little Room or Closet should happen to be lower than the rest, what is wanting must be supplied by a *Mezanine*, or false floor-Cieling.

The Cielings are also made divers ways, for some delight to have handsome and well wrought Joysts; in which case it is necessary to observe, that the Joysts be distant one from another the thickness of a Joyst and a half: because such a distribution will make the Ceiling very handsome, and between the ends of every Joyst, there will be sufficient Wall to bear the upper Story: whereas if they should stand wider one from the other, it would look ill, and if closer, 'twould be like a dividing of the upper Wall from the lower; and the Joysts rotting at the end, or being consum'd by Fire, the Wall above must fall of course. Others will have Compartements of *Stuc* (*which is a sort of hard Plaster*) or of Flanks, that they may enrich them with Pictures, beautifying them according to their various Humours and Fancies; and therefore in this point there can be given no determinate Rules.



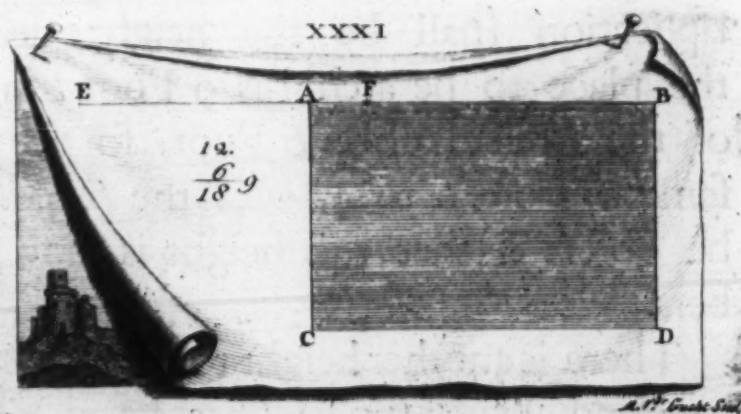
## CH A P. XXIII.

### *Of the height of CHAMBERS.*



**C**HAMBERS are made either arch'd, or with a flat Cieling. If the last way, the height from the Pavement or Floor to the Joysts above, ought to be equal to their breadth: and the Chambers of the second Story must be a sixth part

less than them in height. As to the Rooms which are arch'd (and which are commonly made so in the first Story, not only because they are more beautiful, but also less subject to Fire) their height in a square Room is a third more than their breadth: but in those, whose length exceeds their breadth, a height proportional to the length and breadth together may be easily found, by joining both the two Lines of the length and breadth



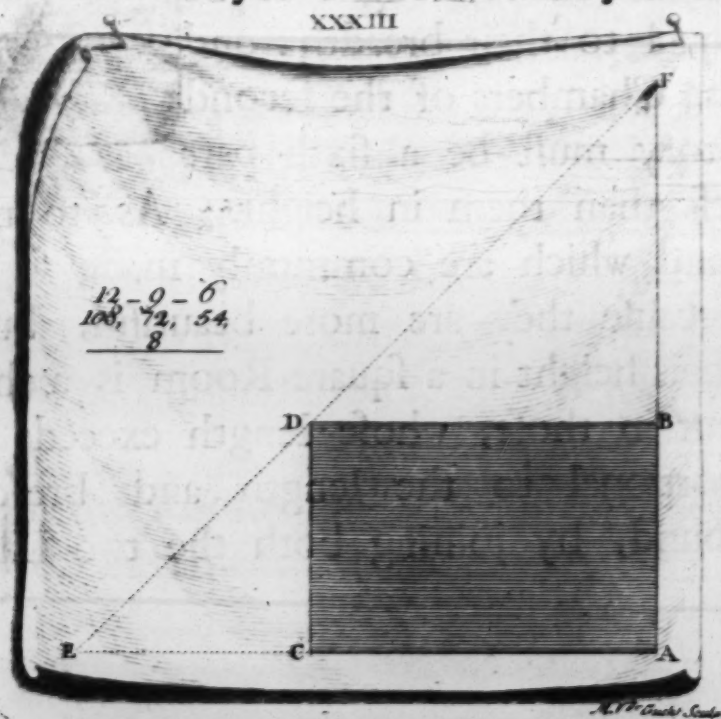
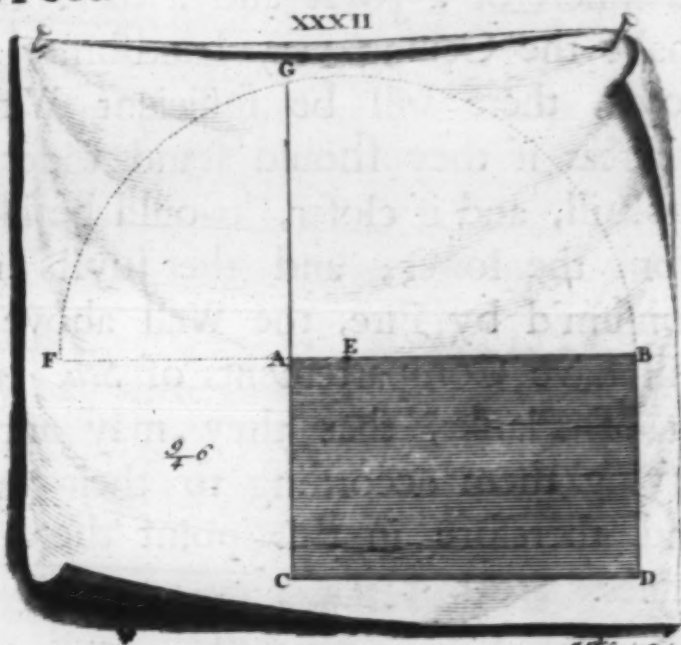
into



into one Line, which being divided by the middle, the one half will give exactly the height of the *Arch*. As for Example, let BC be the place where an arc'd Room is to be made; joining the breadth AC with the length AB, and the Line EB being divided into two equal parts in the point F, 'tis plain that FB is the height requir'd. Or if the Room to be arch'd is 12 Foot long, by 6 wide, these two numbers join'd together, give 18, the half of which is 9, and therefore the height of such a Room must be 9 Foot.

Another proportional height to the length and breadth of a Room, may be found in this manner. BC being the Room to be arch'd, the length and breadth shall be join'd upon one Line as BF; on the middle of which having mark'd the point C, it will be the Center of the Semi-circle BGF, and in prolonging the Line AC till it touches the Circumference at the point G, the Line AG will be the height of the Arch BC. That same proportion is to be found by numbers in this manner: knowing how many Foot are contain'd in the length and breadth of the Room, we must find a number which has the same relation of proportion with the breadth, as the length has with it, by multiplying the less extreme by the greatest; because the *square Root* of the product of that multiplication shall be the height demanded. As for Example, if the place to be arch'd is 9 Foot long and 4 Foot wide, the height of the Arch shall be 6 Foot, for the proportion from 9 to 6, is the same as from 6 to 4, viz. the *sesquilateral* proportion, but it must be observ'd that this height is not always to be found by numbers.

There is another height to be found, which tho less, has notwithstanding a very good proportion with the length and breadth of the Room. Having drawn the Lines AB, AC, CD, and DB, which represent the breadth and





length of the Room, and the height taken according to the first method, which is CE being join'd to AC; draw the Line EDF, then prolonging the Line AB till it touches the Line EDF, in the Point F, the Line BF shall be the height of the Arch. But to find it by numbers is thus. Having taken the length and breadth of the Room according to the first method, which height is in the foregoing Example 9 Foot; put together the length, the breadth, and the height, as this Figure represents, then multiply the 9 by 12, and the 6, and the product of 12 9 6 the 12 being set under the 12, and that of the 6 108, 72, 54 under the 6; multiply 6 by 12, lay the product 8 under the 9, which will make 72, and having got a number which being multiplied by 9, produces 72, as 8 would do in this Example, I say that the Arch is to be 8 Foot high. These different heights have such a relation amongst themselves, that the first is larger than the second, in the same proportion with which the second is larger than the third. We may then make use of each of these heights, according as they will allow more conveniency in contriving, that the several Rooms of different dimensions may have their *Arches* equally high, and yet with a just proportion. By these means the Rooms will have an agreeable Aspect, and the Floor above will be upon a level, and very commodious. There are other proportions for the height of *Arches*, which have no determinate Rules: and so they must be left to the Architect to make use of them, according to his Judgment, and as he sees necessary.

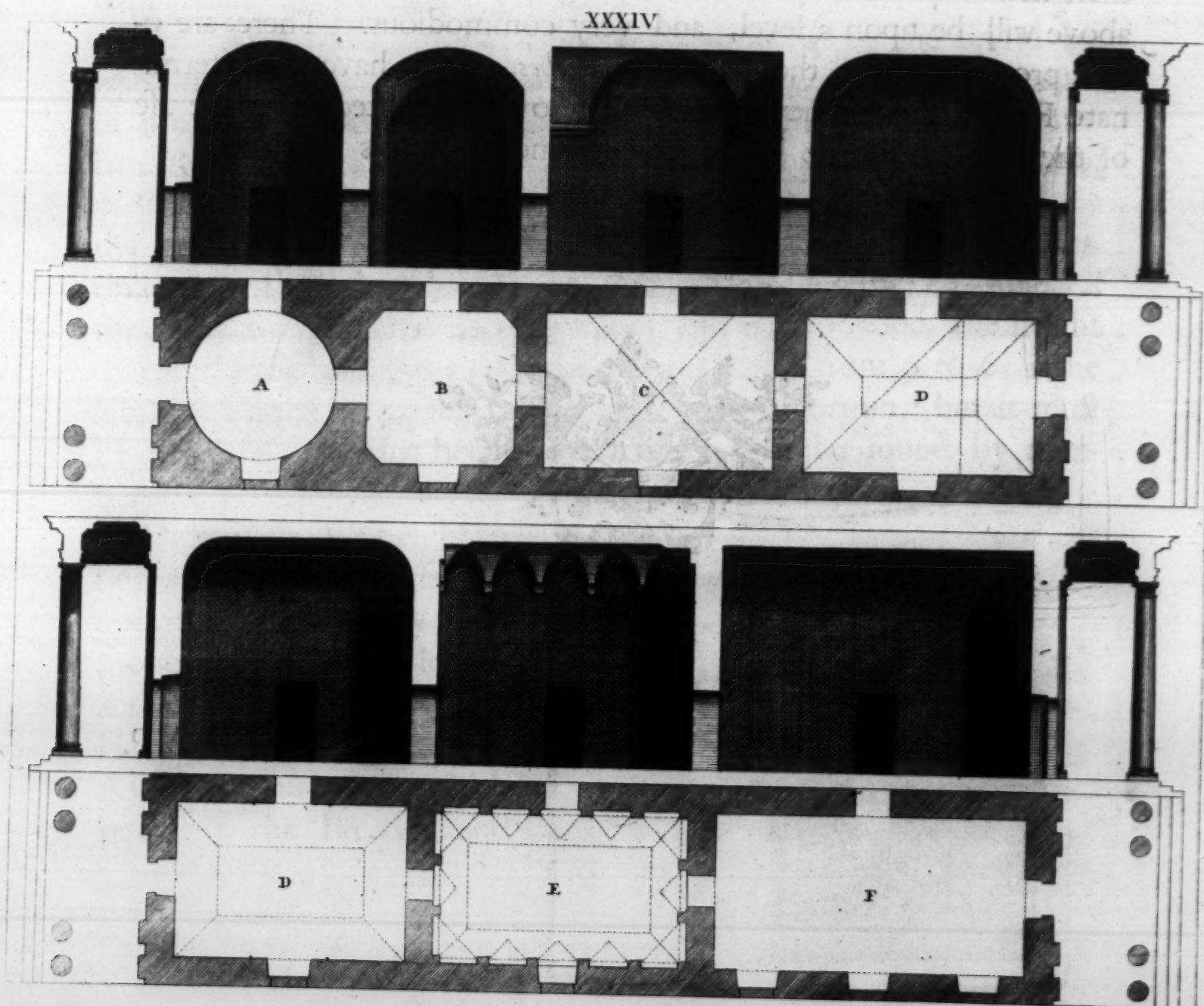




## CHAP. XXIV.

### *Of the divers sorts of ARCHES.*


**T** HERE are six different forms of *Arches*, viz. *cross'd*, *faciated*, *flat*, (those are call'd *so*, which are but a Section of a Circle) *round*, *grinded*, and *shell-like*, all which have in height the two thirds of the breadth of the Room. The two last are but of a modern Invention, but the other four were us'd by the Antients. Round *Arches* are fit for square Rooms: and the way to make them, is to leave in the four Angles some sort of *Mutules*, *Cartooshes*, *Consoles*, or any other *Shouldering-pieces*, to bear the *Arch*, which in the middle happens to be flat, but more round, as it comes nearer the Angles. Such a one is at *Rome* in the Bath of *Titus*, which was almost ruined when I saw it. I have drawn here the form of each sort of *arching*, appropriated to the Figure of the Rooms that are fit for the same.





## C H A P. XXV.

*Of the Measures of DOORS and WINDOWS.*

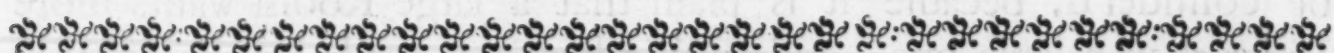
 IS not possible to give any certain and determinate Rule for the height and breadth of the principal Gates, or Doors of Buildings, nor of the Doors and Windows of Rooms; because, that, for to make the principal Gates, the Architect must accommodate them to the extent of the Edifice, the quality of the Master, and the use that is to be made of them, by what goes in, or out of the same. The following method seems to me to succeed well enough: that is, to divide all the height from the Ground to the first Ceiling above into three parts and a half (as *Vitruvius* mentions in his 4th Book, Chap. 6.) and to give two of those parts to the height of the opening, and one to its breadth, wanting a 12th of the height. The Antients were wont to make their Doors narrower above than below, as may be seen in a Temple at *Tivoli*; and *Vitruvius* teaches the same, perhaps for procuring a greater solidity. The great Doors ought to be plac'd in such a manner, that there may be a free coming to them from all parts of the House. Doors within the House ought not to exceed three Foot in breadth, nor six and a half in height: nor can they be less than five Foot high by two wide. As for the openings of the Windows, one must consider how to place them so that the Rooms should not receive too much nor too little Light; and that the Windows themselves be not too close, nor at too great distance one from another. Therefore in ordering of them the dimensions of the Rooms are to be consider'd, because it is plain that a large Room wants more Light than a little one; and if Windows are made less in number and smaller than the Building requires, the Rooms will be dark: as on the contrary, if they exceed both in number and largeness of the opening, they'll render the Rooms uninhabitable, because of the Air which will bring in, according to the seasons, too much cold, or too much heat; except they are situated to a temperate exposition of the Sun. For these Reasons, the breadth of the opening of the Window ought not to exceed the fourth part of that of the Rooms, nor to be less than the fifth: they must likewise have

in



in height two Squares, and a twelfth part. And because a House is made of several Rooms, some of a large, some of a small, and some of a middle size; and that nevertheless all the Windows of the same Story are to be equal, I chuse to take the measure of them on the dimension of those Rooms whose length is two thirds more than the breadth, that is, as 10 Foot are to 30: and I divide that breadth into 4 parts and a half, one of which serves for the breadth of the opening of the Windows, giving to the height two of the said parts, with a sixth of the breadth, and I keep the same proportion of all the other Windows. Those of the second Story ought to be lower by a sixth part than those of the first; and if there be some others above them (as in a third Story) they must follow the same diminution. One must take great care also, that the Windows may be equal one with the other in their rank and order; so that those on the right hand may answer those on the left, and those above may be plac'd right over those below. Likewise, the Doors must be exactly over one another, to the end that the void may be upon the void, and the solid upon the solid. Moreover they require to be upon the same Line, that one may see through from one end of the House to the other, which is very beautiful and cool in the Summer, and has many conveniencies besides.

For solidity's sake certain *Arches* are turn'd over the Cornices of Doors and Windows, which Workmen call *Flat-Arches*, to prevent the Doors and Windows from being press'd with too much weight, which is of no little importance for the lasting of the Building. The Windows must be distant from the Corners of the Building as much as possible, as I have observ'd before; because that part whose Office is to support, bind, and fasten all the rest of the Fabrick, ought not to be open and weaken'd. The Pilasters, Jambs, or Cheeks of Doors and Windows are not to be thicker than the fifth part of the breadth of the opening, nor less than the sixth. It remains to see their Ornaments.



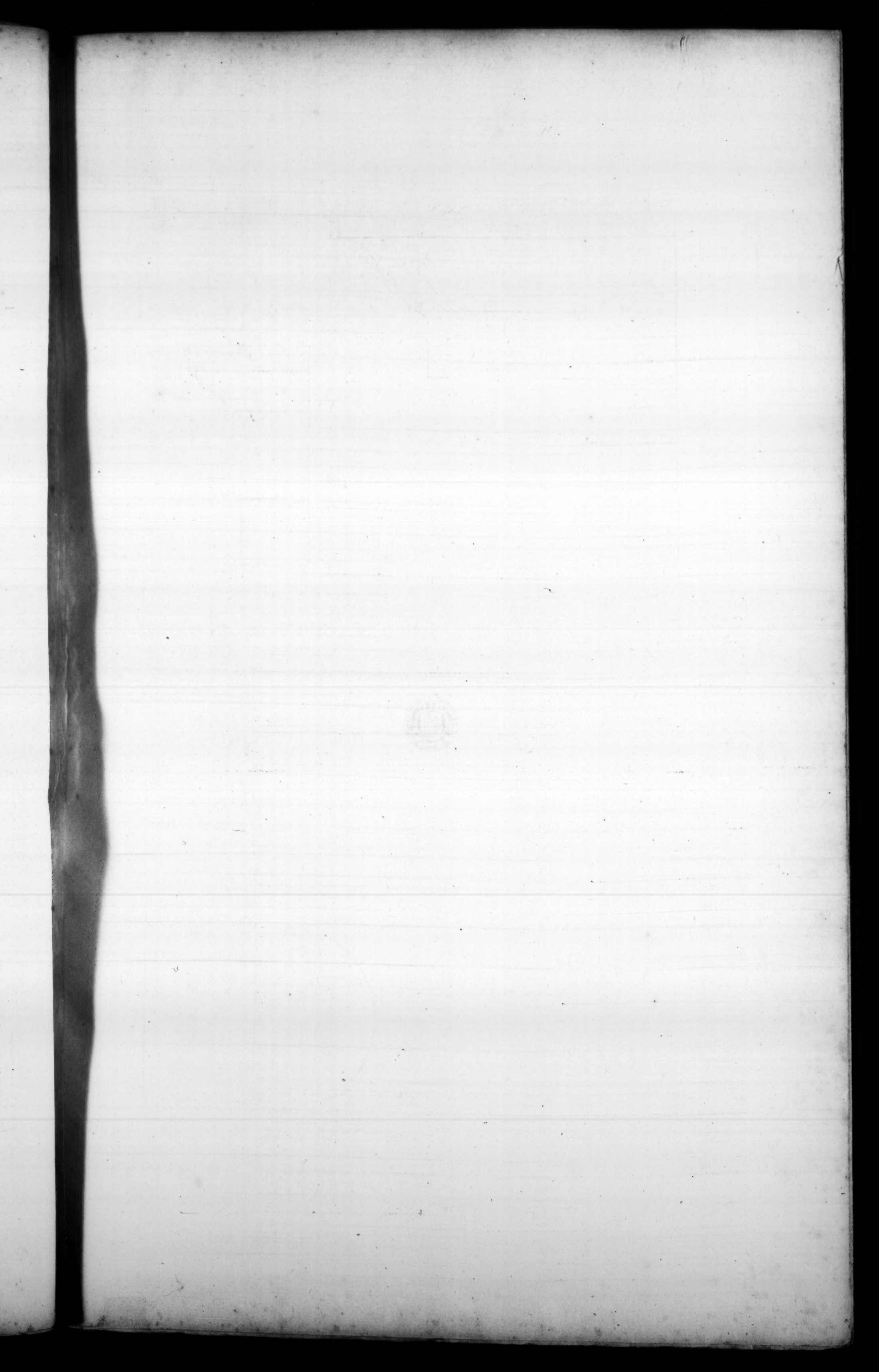
## C H A P. XXVI.

### *Of the Ornaments of DOORS and WINDOWS.*

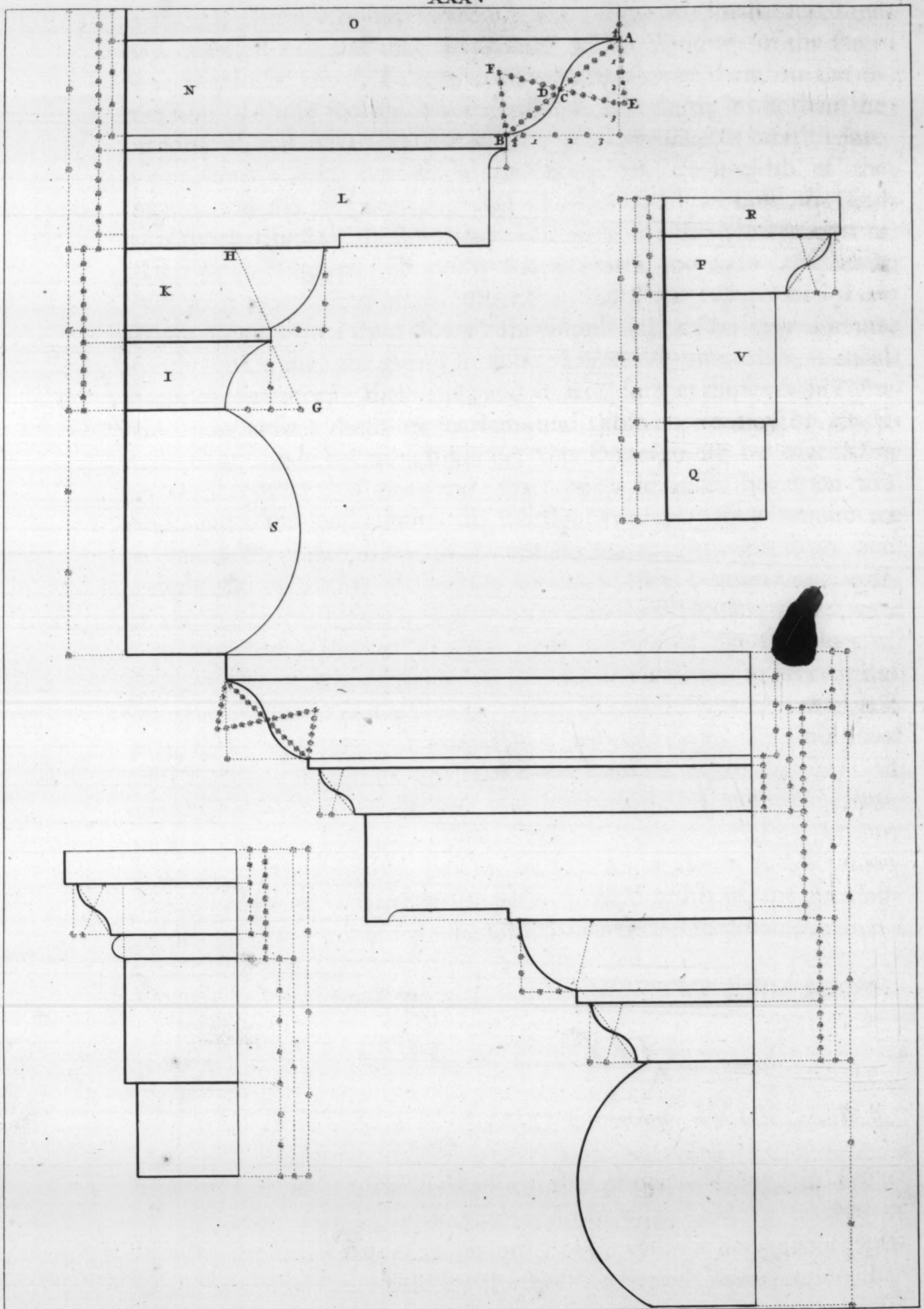


OW to enrich and adorn the principal Doors in Buildings, may easily be known from what *Vitruvius* teaches in the 6th Chapter of his 4th Book, with the help of the explanation and draughts made by the most Reverend *Barbaro* upon that Subject,











Subject, together with what I have said and design'd already about the five Orders: wherefore leaving these things, I shall only give here some Ornaments of the Doors and Windows of Chambers, in the manner that they may be variously made; and will also shew the method of profiling each Member with grace, and its due *Projecture*. The Ornaments which are given to Doors and Windows, are the *Architrave*, *Frize*, and *Cornice*. The *Architrave* turns about the Door, and ought to be as thick as its *Jambs*, or *Pilasters*: which (as I have said) must not be less than the sixth part of the breadth of the opening, nor more than a fifth. The dimensions of the *Frize* and *Cornice* are also taken from the same opening. Of the two following inventions the first, that is the uppermost, is measur'd thus.

\* The *Architrave* (which is suppos'd here to be the sixth part of the breadth of the opening) is divided into four equal parts, three of which are allow'd for the *Frize*: and five, like them, will make the *Cornice*. The *Architrave* is again divided into ten parts, the first *Fascia* takes up three, the second four; and the three remaining are subdivided into five, two of which are for the *Regula*, or *Listel*, the three others for the *Cima reversa*: its *Projecture* is equal to its height; the *Regula* projects less than half of its thickness. The *Cima reversa* is made in the following manner: a strait Line being drawn from the underneath of the *Regula* to the upper part of the second *Fascia*, that line is divided into two parts, so as each of these halves is the *Base* of a Triangle *Isocel*, that is of two equal sides; and on the Angles oppos'd to these *Bases* the fix'd foot of the Compass being plac'd, and the *Curve lines* drawn, they'll form the said *Cima reversa*.

The *Frize*, which takes up three parts of the *Architrave* divided into four, is made the *Convex* of a portion of a *Circle* less than the *Semicircle*; its largest diameter falling *plum* over the *Cimafium* of the *Architrave*. The five parts allow'd for the *Cornice*, are distributed to its Members in this manner; one is given to the *Cavetto* with its *Listel* (which is a fifth part of the said *Cavetto*) the projecture of which *Cavetto* is two thirds of its height. To design it, one must form a Triangle *Isocel*, the center of which is (as here) the angle C; so that the *Cavetto* becomes the *Base* of the Triangle. Another of the said five parts is given to the *Ovolo*. The projecture of it is also the two thirds of its height, and is likewise

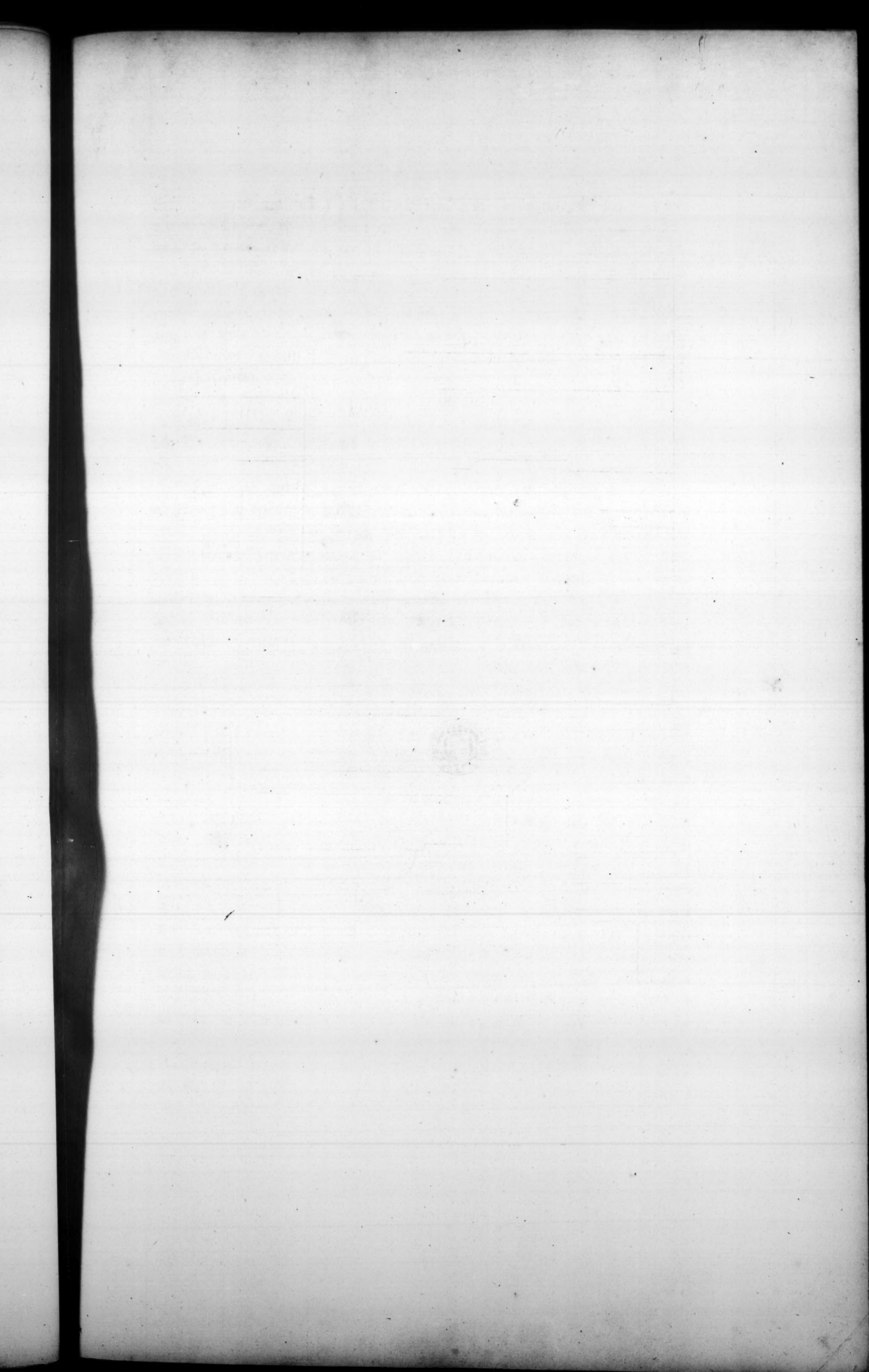


form'd by the help of an *Ifocel* triangle, its Center being at the point H. The other three parts of the five, are subdivided into 17; eight for the *Corona* with its *Listels*, of which that above makes one of the eight parts; and that which is below, and makes the hollow of the *Corona*, has but a sixth part of the *Ovolo*. The other nine are for the *Cima recta* and its *Regula*, which is a third of the said *Cima*. But to make the said *Cima* of an elegant form and justness, the strait line A B is drawn, and divided into two equal parts at the point C; one of these two parts is subdivided into seven, whereof six being taken at the point D, one must draw the two Triangles A E C, and C B F: then on the points E and F a foot of the Compass being fix'd, the portions of the Circles A C, and C B, will form the said *Cima recta*.

The *Architrave* of the second invention (which is the lowermost) is likewise divided into four parts, three of which are given to the height of the *Frize*, and five like them to the *Cornice*. The *Architrave* is again divided into three parts, two of which being subdivided into seven, three are for the lower *Fascia*, and four for the other. The third part of the *Architrave* is divided into nine parts, of two whereof is made the *Astragal*, and the seven remaining, being subdivided into five, three are for the *Cima reversa*, and two for the *Orlo*, or *Regula*.

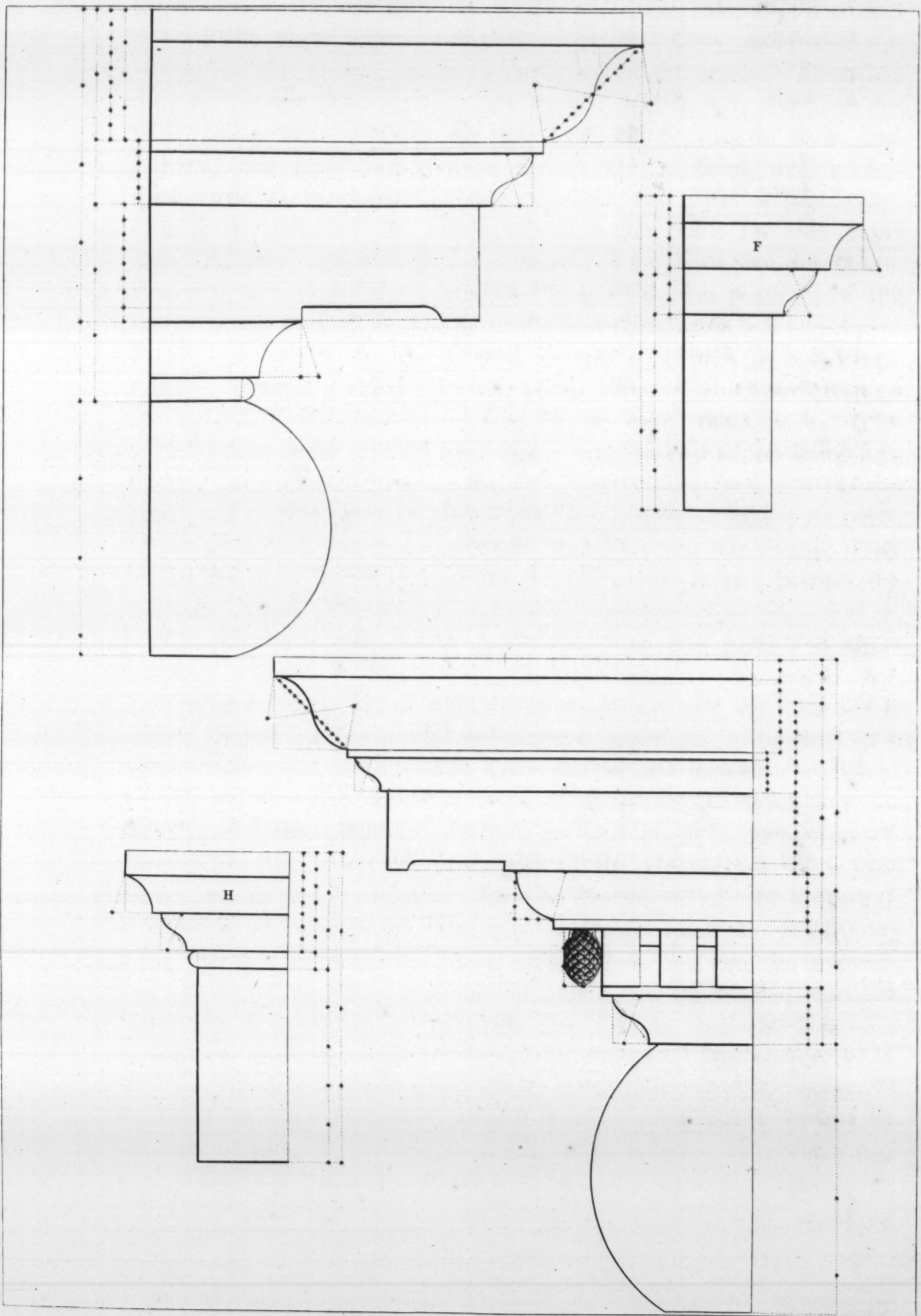
The height of the *Cornice* is divided into five parts and three quarters. One of which being subdivided into six parts, five are given to the *Cima reversa* above the *Frize*, and the sixth for its *Listel*; the *Projecture* of the said *Cima* is equal to its height, as is that of the *Listel*. The *Ovolo* takes the second part of the height of the *Cornice*, and its *Projecture* is three quarters of its height; the *Listel* above the *Ovolo* is a sixth of it, and projects just as much. The other three parts of the height of the *Cornice* are subdivided into 17, eight of which are for the *Corona*, whose projecture is one third more than its height. The other nine are subdivided into four parts; three are for the *Cima recta* and one for the *Orlo*, or *Listella*. The three quarters remaining are subdivided into five parts and a half; of one is made the *Listella*, and the four and a half for the *Cima reversa* above the *Corona*. The projecture of this *Cornice* is equal to its thickness, or height. By the means of the two following Designs, one may know the Members of the second invention.







XXXVI



M. F. G. Gault, Scul.



Members of the *Cornice* of the first invention.I. *Cavetto*.K. *Ovolo*.L. *Corona*.N. *Cima recta*.O. *Orlo*, or *Listella*.Members of the *Architrave*.P. *Cima reversa*.Q. First *Fascia*.V. Second *Fascia*.R. *Orlo*, or *Listella*.S. *Convexity*, or *swelling of the Frize*.T. *Part of the Frize which enters into the Wall*.

\* Of these two other inventions following, the *Architrave* of the first mark'd F, is likewise divided into four equal parts, three and a quarter of which make the height of the *Frize*, and five like them is the height of the *Cornice*. The *Architrave*, being divided into eight parts, five are given to the *Plain*, and three to the *Cimafium*, which *Cimafium* is subdivided into eight, three for the *Cima reversa*, three for the *Cavetto*, and two for the *Orlo* or *Regula*. The height of the *Cornice* is divided into six parts, two are for the *Cima recta* with its *Orlo* or *Regula*, and one for the *Cima reversa* with its *Listella*. The *Cima recta* is divided into nine, eight of which are for the *Corona* with its *Listella*. The *Astragal*, or *Tondino*, above the *Frize*, is but a third of one of the said six parts; and what remains between the *Corona* and the *Astragal*, is left for the *Cavetto*.

In the next Invention the *Architrave* mark'd H, is divided into four parts: the *Frize* is as high as three and a half of them, and the *Cornice* as five. The *Architrave* being again divided into eight, the *Fascia* takes five, and the three others are for the *Cimafium*: which *Cimafium* being subdivided into seven, whereof the *Astragal* takes one; the six are again subdivided into eight, three of which are for the *Cima reversa*, three for the *Cavetto*, and two for the *Orlo*, or *Regula*.

The whole height of the *Cornice* is divided into six parts and three quarters. The *Cima reversa*, *Ovolo*, and *Dentilli* take there. The *Cima* projects as much as its square, the *Dentilli* project as much as two of three parts of their height, and the *Ovolo* as three of four parts. The *Cima reversa*, between the *Cima recta* and the *Corona*, is made of the three quarters of a part of the first division. The




three remaining parts are subdivided into 17. Nine of which are for the great *Cima* with its *Orlo*, or *Regula*; and eight for the *Corona*. This *Cornice's Projecture* is equal to its height, or thickness, as the other afore said.



## CHAP. XXVII.

### Of CHIMNEYS.

 HE Antients us'd to heat their Chambers in this manner. They made their Chimneys in the middle of the Room, with Columns, or *Modilions* to bear up the *Architrave*, upon which were the *Funnels* of the Chimneys made in a Piramidal form, which convey'd away the Smoak. Of that kind one may be seen at *Baia* near the Fish-pond of *Nero*; and another near *Civita-vecchia*. And when they did not care to have any Chimney, they us'd to make *Pipes*, or *Funnels*, in the thickness of the Walls, through which ascend- ed the heat of the fire which was kept under the Rooms, and so was convey'd thro certain *Vents*, or *Valves* that were at the top of the said *Pipes*, or *Funnels*. Much like this the Gentlemen of the Family of *Trenti* in the *Vicentin* refresh in the Summer the Chambers of their *Villa* at *Cof- toza*. For that Building is situated upon Hills, in which are certain great *Caves* call'd by the Inhabitants *Covali*, which in former times were Quarries. These, I suppose, *Vitruvius* means in his second Book, wherein, speaking of Stones, he tells us that in the *Trevizan* there is a sort of Stone which is saw'd like Timber. From these Caves arise extream cold Winds, which these Gentlemen introduce into their House, through certain subterranean Vaults, nam'd by them *Ventiducts*: and by the means of certain *Pipes* or *Funnels*, like to those whereof I have spoken before, they make them run through all the Chambers, opening and shutting them at pleasure, to take more or less of that cold Air, according to the Season. And though this place would be wonderful, were it only for this singular conveniency, nevertheless that which renders it still more admirable and worthy to be seen, is another place call'd the *Prison of the Winds*; which is a subterranean Room contriv'd by Signior *Francisco di Trenti*, nam'd by him *Æolia*, that is, the Palace of *Æolus*, in which many of these *Wind-Pipes*, or *Ventiducts*, are discharg'd: and to render it beautiful and worthy of this name, he has spar'd neither pains, nor costs of any sort.

But




But to return to our Chimneys, we *Moderns* place the *Funnels* of the Chimneys in the thickness of the Walls, and carry them quite through the Roof, and higher than the *ridge*, that they may the better carry the Smoak away into the Air. One must take care that the Funnels be made neither too wide, nor too narrow: for if they be too wide, the Wind, having a great deal of room to play in, will drive back the Smoak into the Room; and if they are too narrow, the Smoak, not having a free passage, will also return backwards. Therefore the Chimney *Funnels* of Chambers are not to be made narrower than half a Foot, nor larger than nine Inches; and in length two Foot and a half. The mouth of the *Piramide*, where it meets the *Funnel*, must be a little narrower, that in case the Smoak happens to come back, it should put a stop to its returning into the Room. Some make the *Funnels* crooked, thinking that by the winding of them, and the force of the Fire, which naturally drives the Smoak upward, it can't return back into the Room. The Chimney-tops, or openings by which the Smoak goes out, must be broader, and free from any combustible matter. The *Jambs* and *Mantle-trees* of Chimneys, on which the *Funnels* lie, must be curiously wrought; for as to *Rustick-work*, it does not look well, unless it be in a very large Building, for the Reasons aforementioned.



## C H A P. XXVIII.

### *Of Stair-cases and their different sorts; of the number and proportions of their Steps.*

 HERE ought to be great care taken in the well-placing of Stair-cases; for there is not little difficulty to find a place convenient enough, so as the Stairs may not be a hindrance to the rest of the Building. Therefore a particular place must be mark'd out, that no part of the Building should receive any prejudice by them. There are three openings necessary to a Stair-case. The first is the Door-way that leads to them, which the more it is in sight, the better it is; and I highly approve that it be in such a place, where before one comes to it, may be seen the best part of the House; for altho the House should be little, yet at this rate it will appear much larger: therefore the said Door must be obvious, and easy to be found.



The second opening is that of the Windows, through which the Light comes into the Stairs. They ought to be in the middle, and large enough that all the Stairs may be every where inlighten'd. The third opening is the landing place, by which one enters into the Rooms above, which ought to lead first into the largest places, fair and well adorn'd.

Stair-cases will be perfect, if they are spacious, light and easy to ascend: as if, in some sort, they seem'd to invite People to mount. To make them lightsome, they must have a perfect Light, that as I said, disperses it self equally to all parts. As to their spaciousness, 'twill be enough, if in respect of the bigness and quality of the Fabrick, they do not appear too little, nor too narrow. Nevertheless they must never be narrower than four Foot, to the end that if two Persons meet, they may commodiously pass one by the other. They will be convenient enough with regard to the whole Building, if the *Arches* under the Steps are made so large as to hold some Goods, or other necessary things; and convenient likewise for the Persons that come up and down, if the Stairs are not too steep, nor the steps too high. Therefore they must be twice as long as broad. The Steps ought not to exceed six Inches in height; and if they be lower, they must chiefly be so to long and continu'd Stairs, for they will be so much the easier, because one needs not lift the Foot so high: but they must never be lower than four Inches. The breadth of the Steps ought not to be less than a Foot, nor more than a Foot and a half. The Antients used to make the Steps of an odd number, to the end that beginning to ascend with the right Foot, they might end with the same Foot, which they took to be a good Omen, and a greater mark of respect so to enter into the *Temple*. It will be sufficient to put eleven or thirteen Steps at most to a flight, before one comes to half-pace, thus to help weak People, and of short breath, that they might rest a little, and that if something happens to fall from above, it may stop there.

Stairs are made either strait, or winding. The strait may be made either divided into two *Branches*, or *Passages*, or quite Square, in such a manner that they turn on four sides. \* To make them in this last manner, all the space must be divided into four parts, whereof two must be for the Stairs, and two for the vacancy in the middle, by which the Stairs should receive Light, if it be left open. They may be made with a Wall

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\* Plate XLI.



within, and then within the two parts which are allow'd for the Stairs, the Wall is included, which makes the *Cafe* or *Newel*; tho' there is no necessity to do it, for it may be done without a Wall within. These two sorts of Stairs were invented by *Signior Lewis Cornaro*, a Gentleman of an excellent Genius, as one may judge by the Design of a very fine *Gallery*, and a magnificent Palace which he has erected for himself at *Padua*.

As for *Winding Stairs*, which are also call'd *Cockle Stairs*, some are round, some oval, some with a *Newel* in the middle, some open, especially when room is wanting; because they take up a great deal less than the *strait Stairs*, yet not so easy to go up and down. Those which are open in the middle are very handsome, because they may have light from above; and that those which are above, may see those who are coming up, and are also seen by them.

\* Those which have a *Newel* in the middle are made in this manner. The diameter being divided into three parts, two are given to the Steps, and the third is for the *Newel*, as in the Design mark'd A: or otherwise the diameter may be divided into seven parts, three of which are for the *Newel*, and four for the Steps. Just in this manner is the *Staircase* of the Column of *Trajan* at *Rome*: and if the Stairs are made circular, as in the Design B, they will be handsomer and longer than if they were made *strait*.

† But as it may happen that the space will not give room for these measures, then the diameter may be reduc'd and divided, according as it is here represented, C D.

\*\* The diameter of the Stairs open in the middle must be divided into four parts, two of which are for the Steps, and two for the middle.

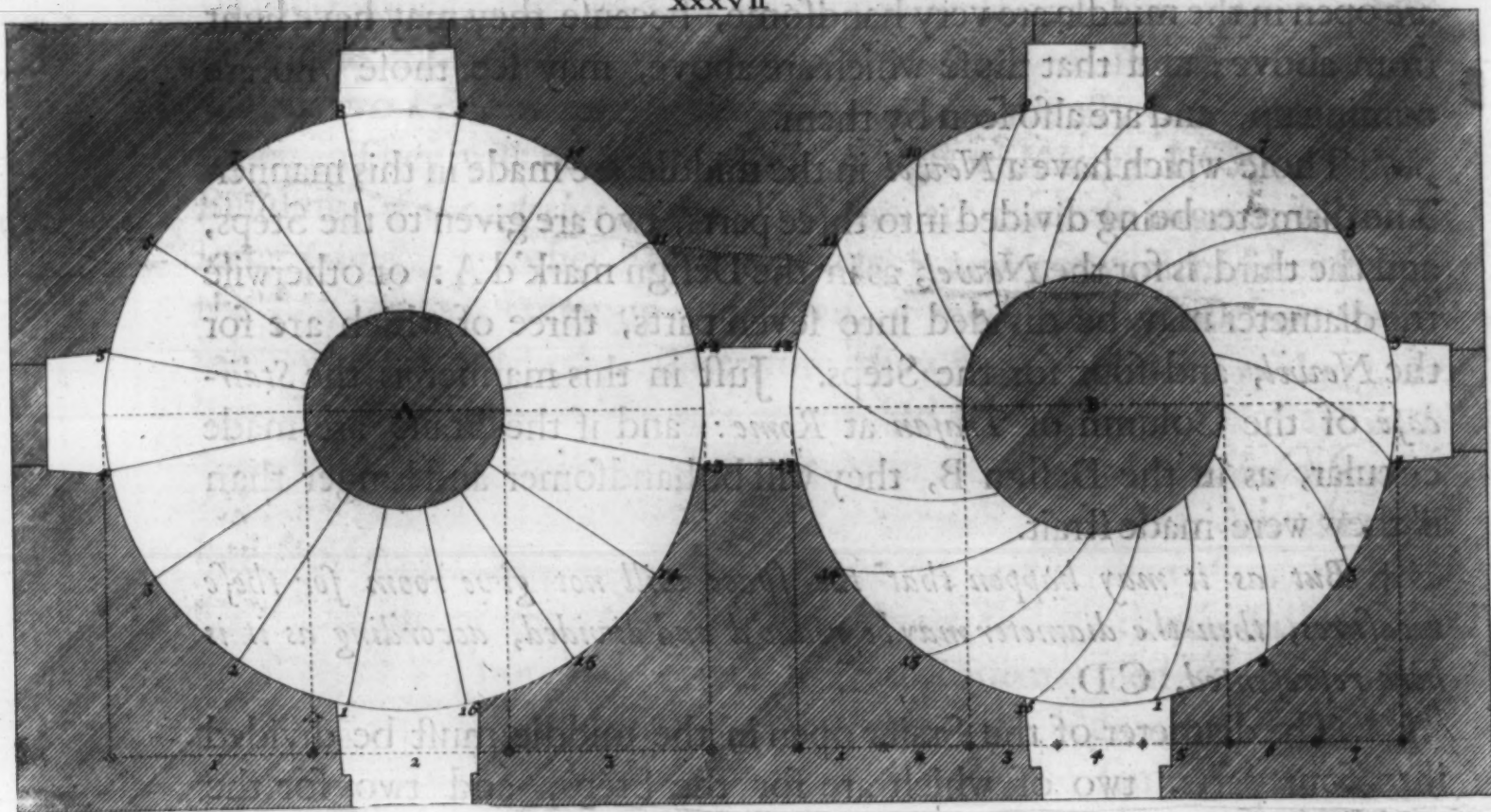
Besides the aforesaid sorts of Stairs, there has been another sort of winding Stairs, invented by *Signior Marc-Antonio Barbaro*, a Gentleman of *Venice*, of an excellent Judgment, which is very convenient for narrow places. It has no *Newel* in the middle, and the Steps being winding or circular, are much longer: its division is the same as the aforesaid. See the Design E F.

†† Those which are *Oval*, are divided in the same manner as the round; they are very handsome and pleasant, because all the Windows and Doors are in the middle, and at the head of the Oval, and are very commodious. I have made one open in the middle, at the Monastery of *Charity* at *Venice*, which is without a *Newel*, and has had a very good Success.

\* Plate XXXVII. † Plate XXXVIII. \*\* Plate XXXIX. †† Plate XL.



- A. *Winding or cockle Stairs with a Newel in the middle.*  
 B. *The same with circular Steps.*  
 C. *The same with a Newel of a less diameter with strait Steps.*  
 D. *The same with circular Steps.*  
 E. *Winding Stairs open in the middle.*  
 F. *The same with circular Steps.*  
 G. *Oval Stairs open in the middle.*  
 H. *Another Oval-Stair with a Newel.*  
 I. *Straight square Stairs open in the middle.*  
 K. *Another with a square Wall in the middle.*

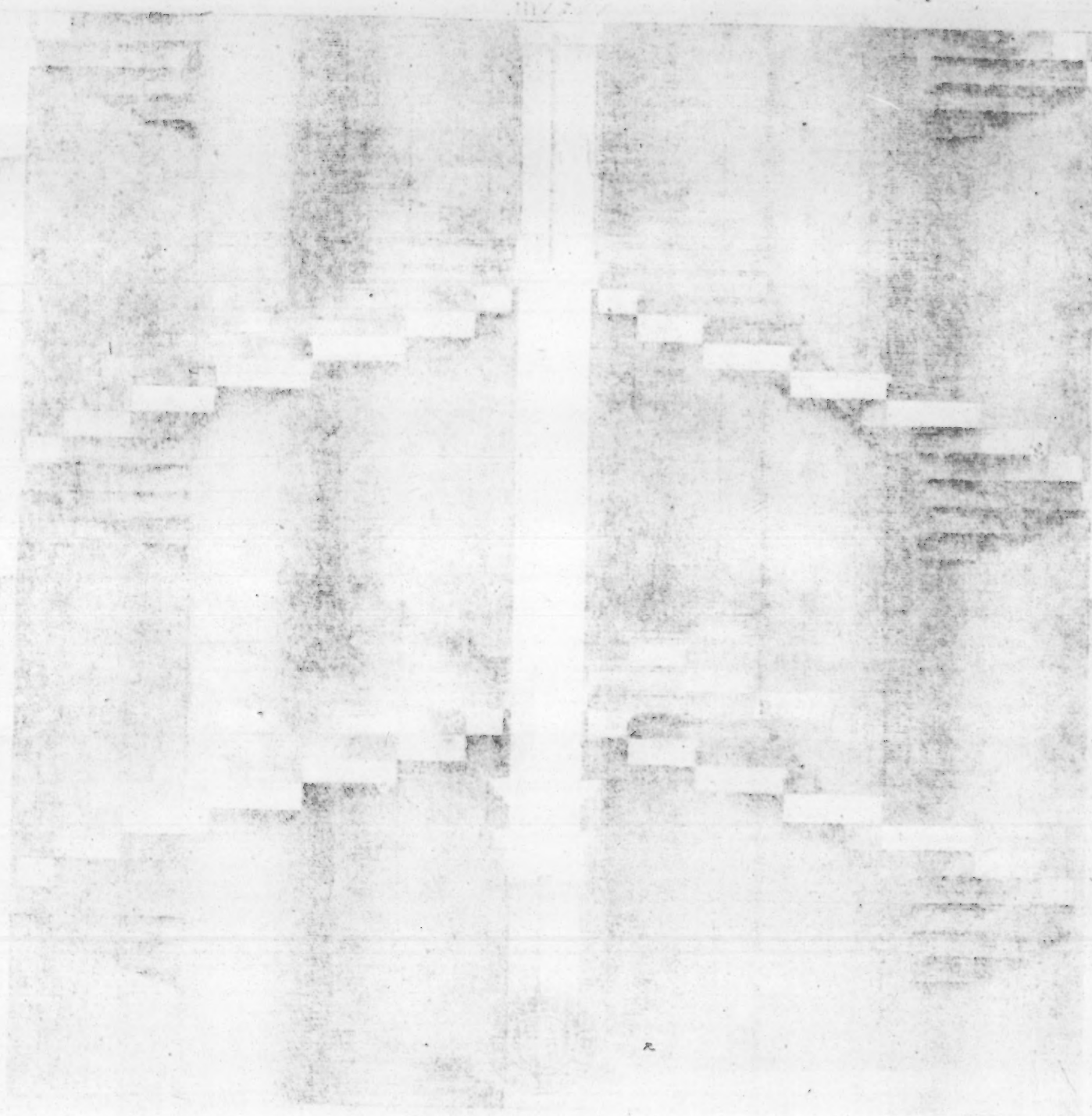


\* There is another very handsome manner of Stairs, which the magnanimous King Francis, the First, caus'd to be made in the Castle of Chambor near Blois in France. 'Tis built in this manner. There are four Stair-cases, which have four entrances, one entry to each: and they go up the one over the other in such a manner, that being made in the middle of the Building, it may serve for four Apartments; so that it is not possible to go from one into the other, and yet because it is open in the middle, they all see each other going up and down, without jostling one another. This invention being new and beautiful, I have plac'd here the Design of it, and mark'd each Stair with its particular Letters on the *Plan* and *Section*, that one may know where each of them begins and where it ends.

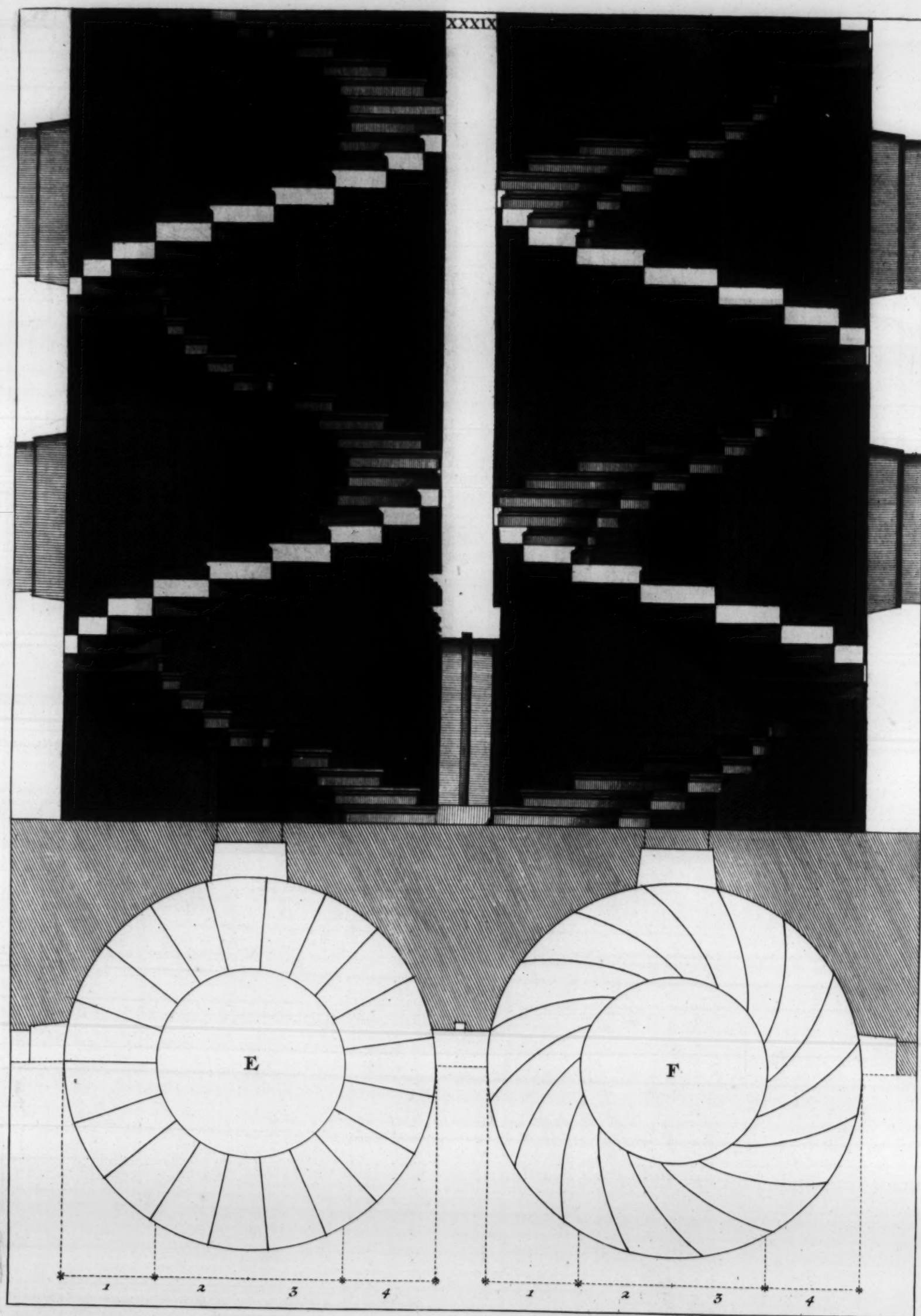






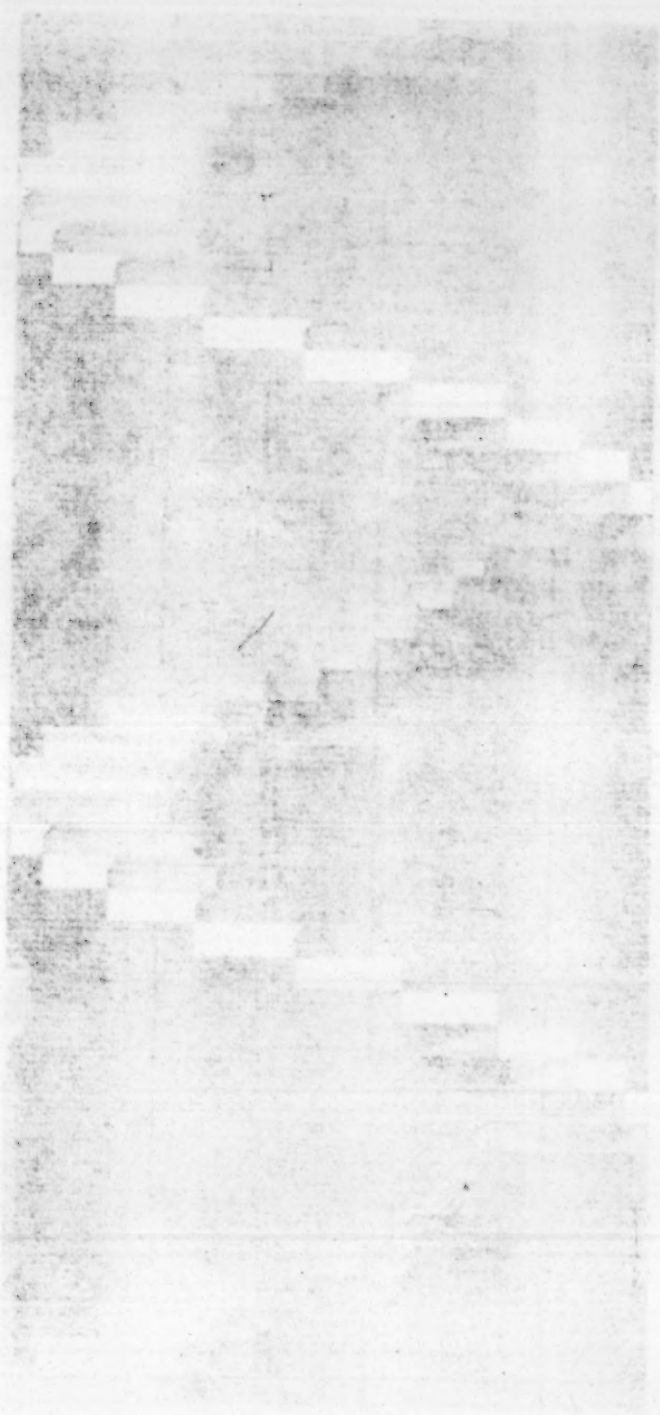
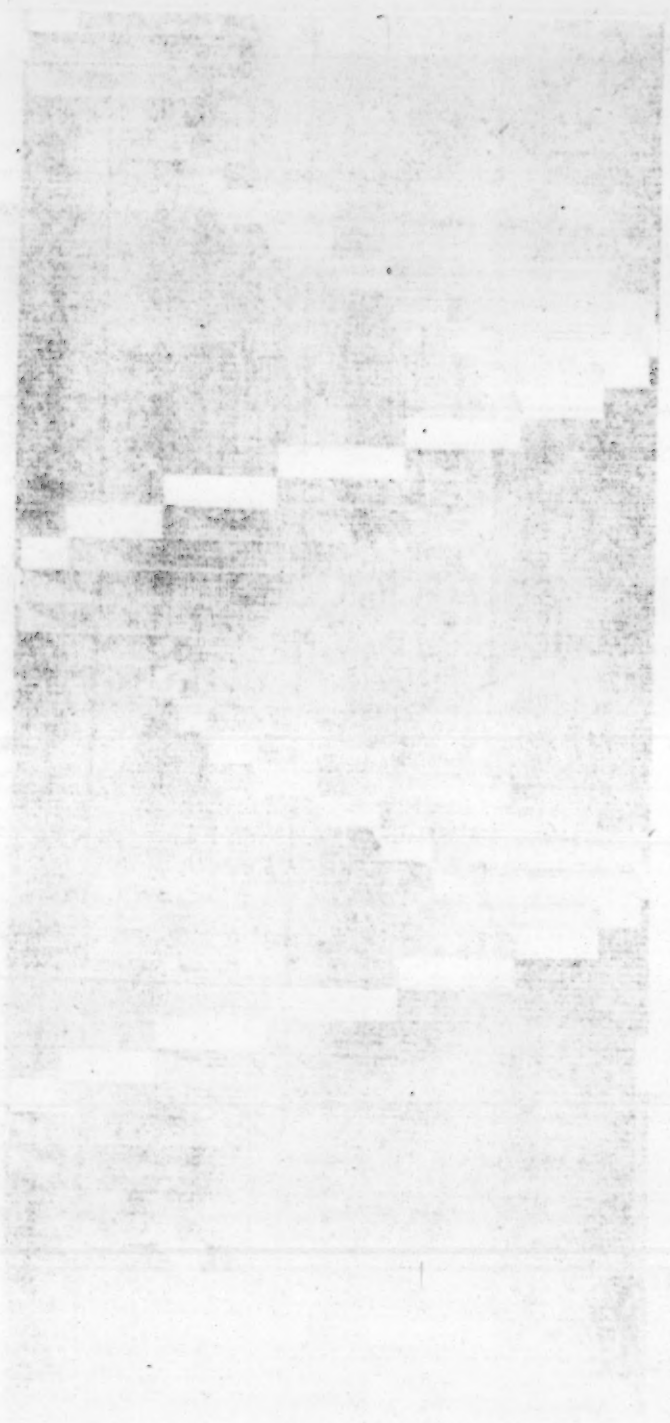




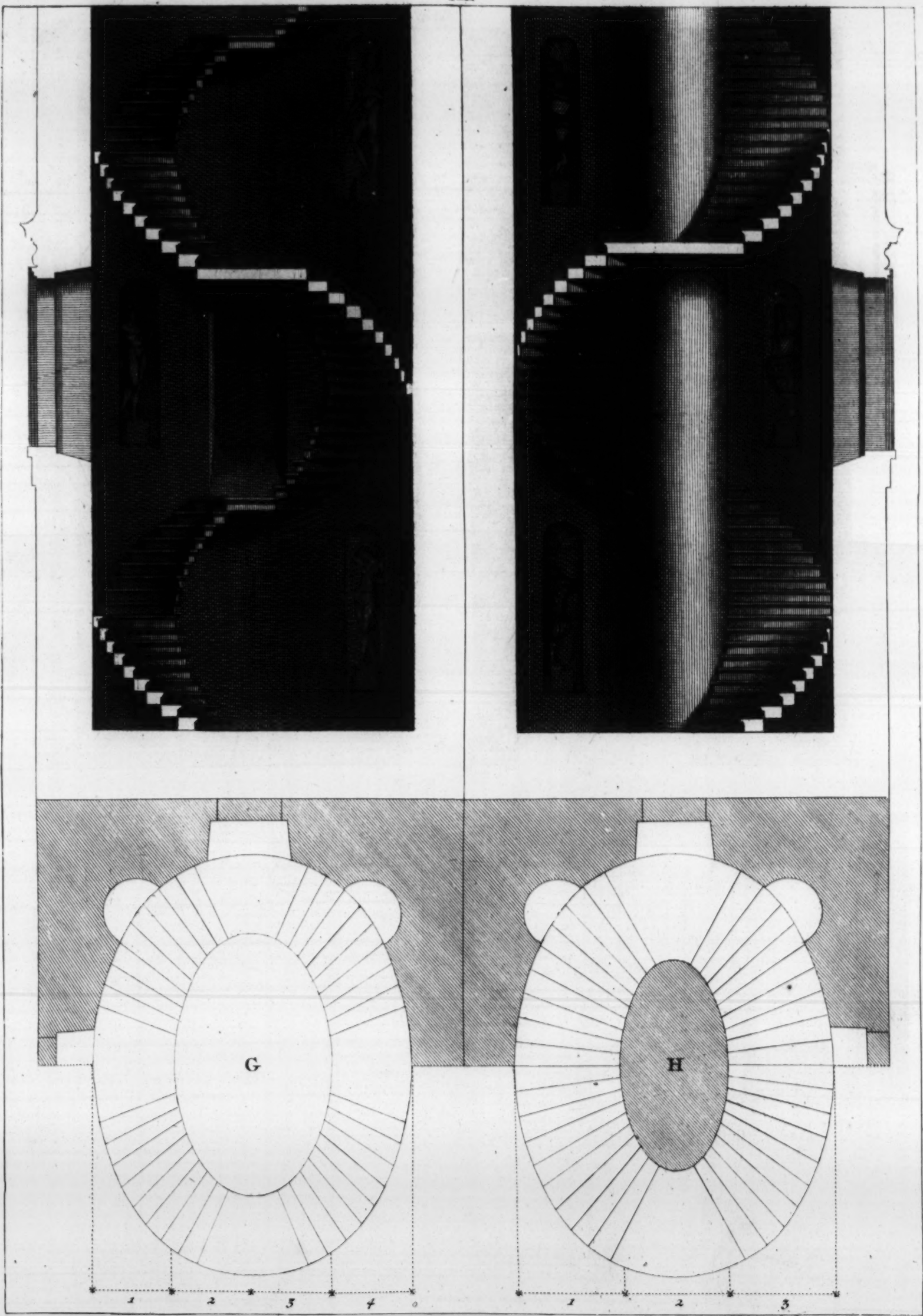


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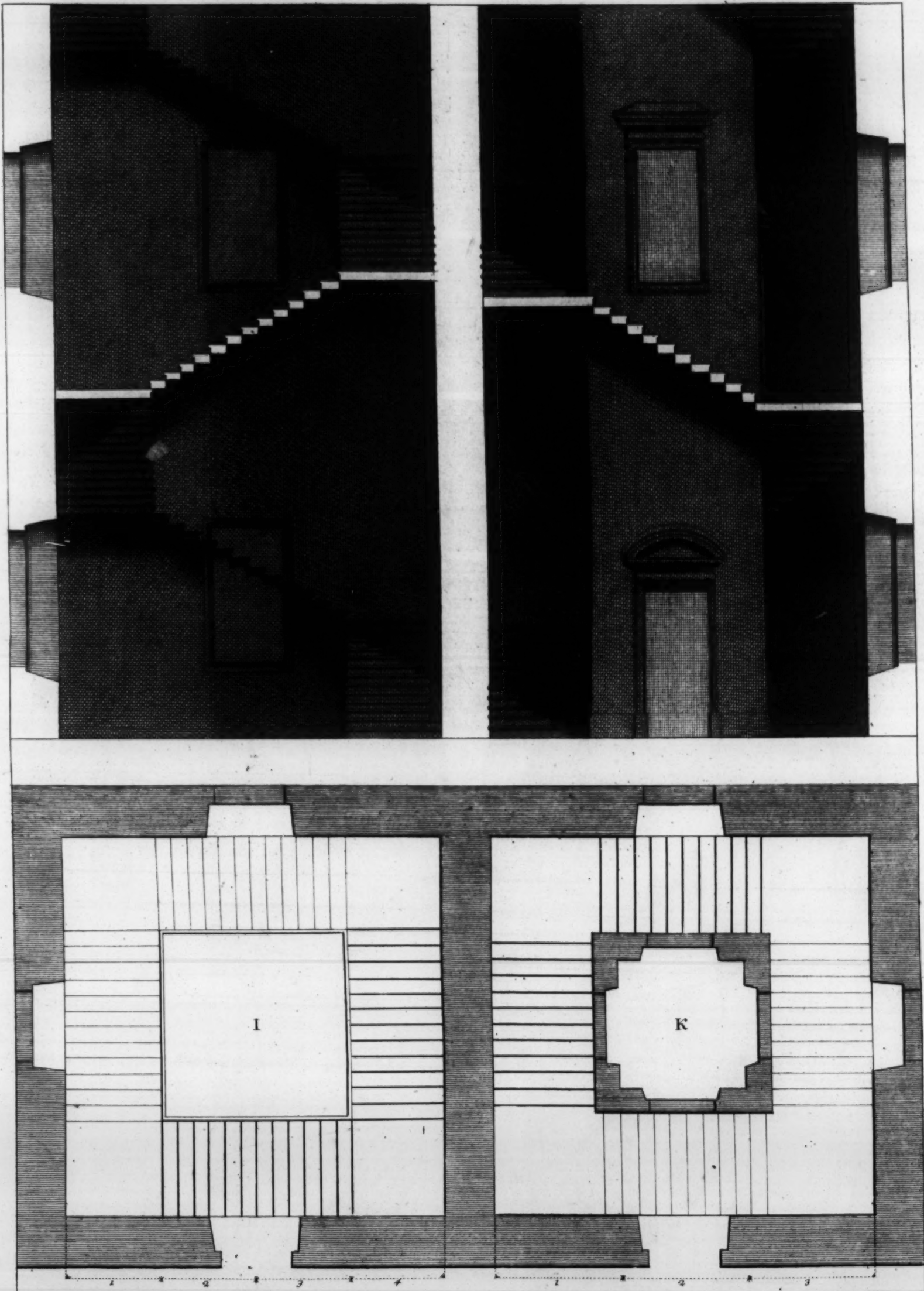


*Créé par la machine de B. P. 1897.*





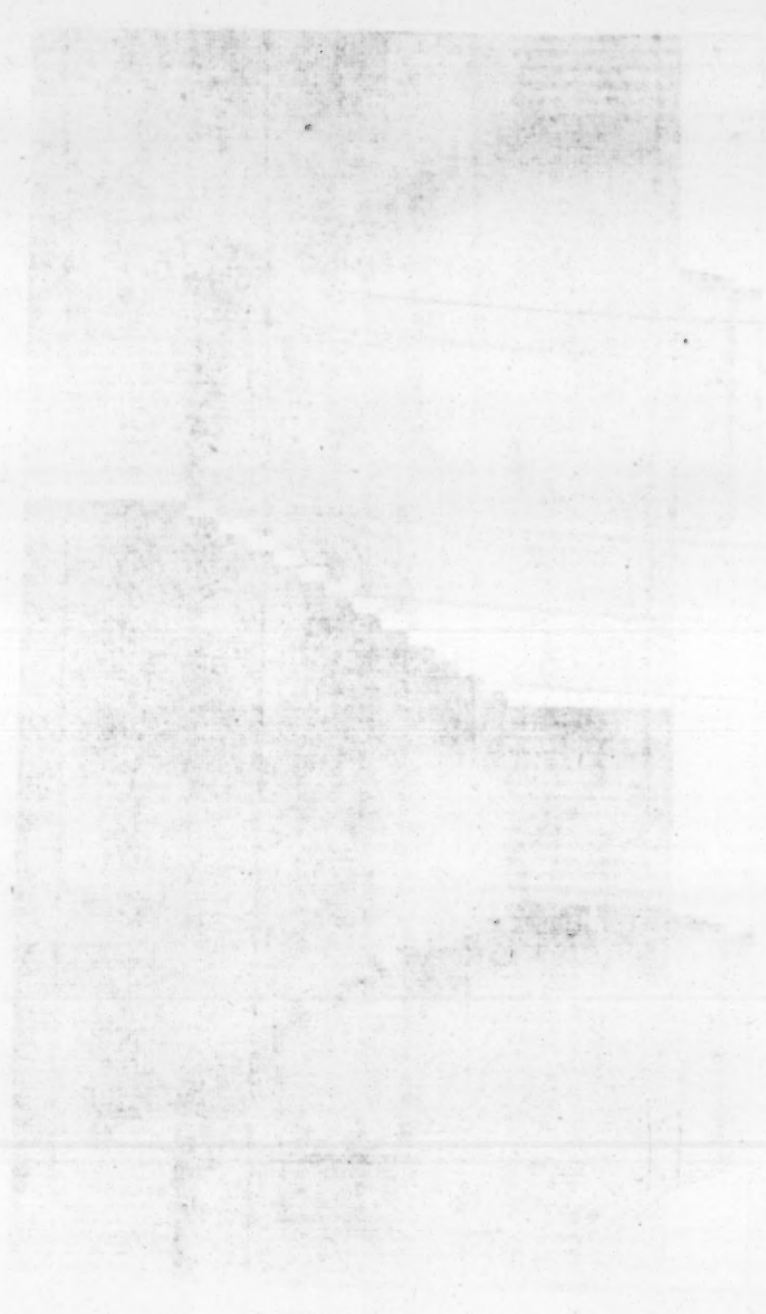
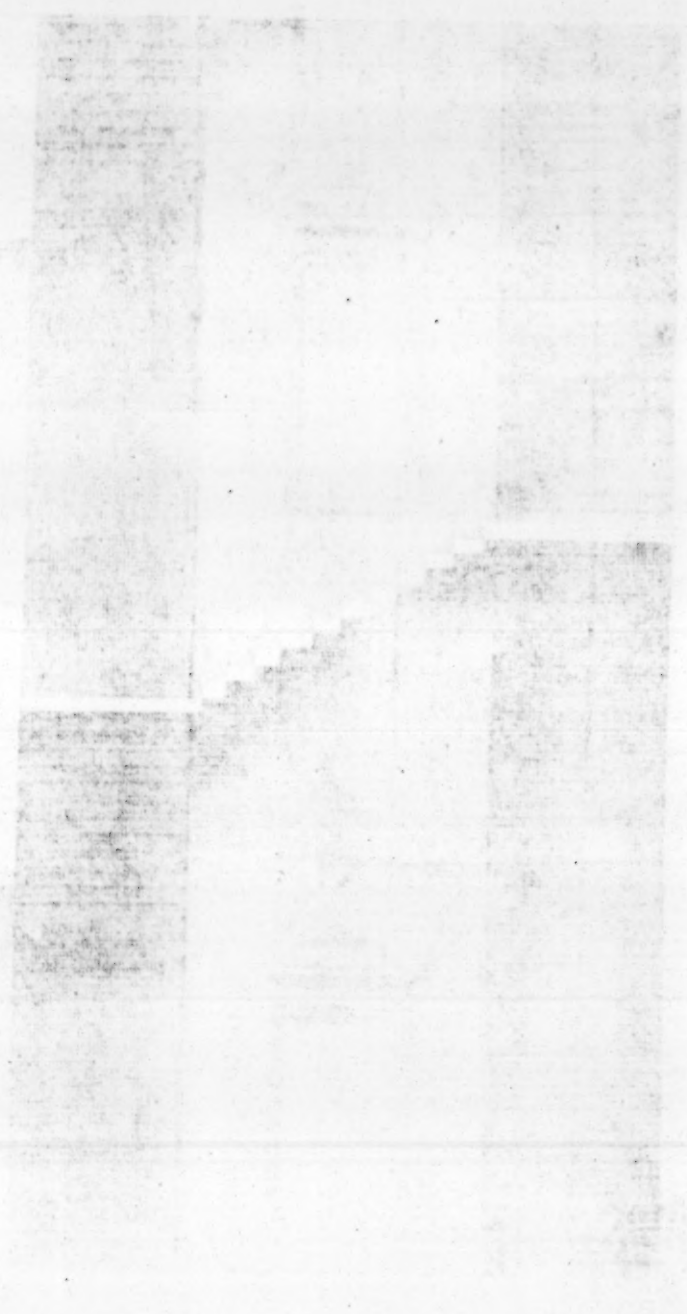




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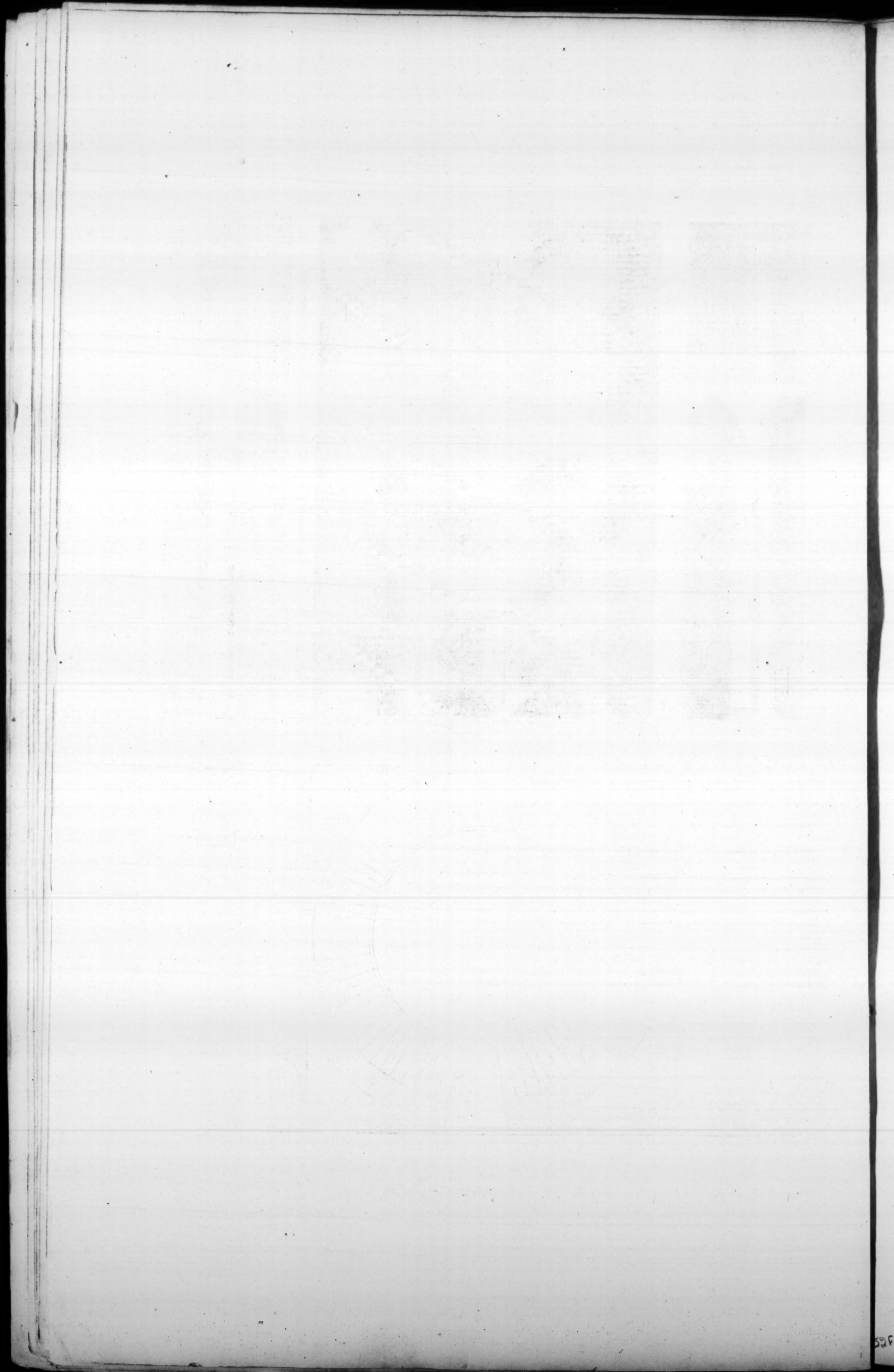








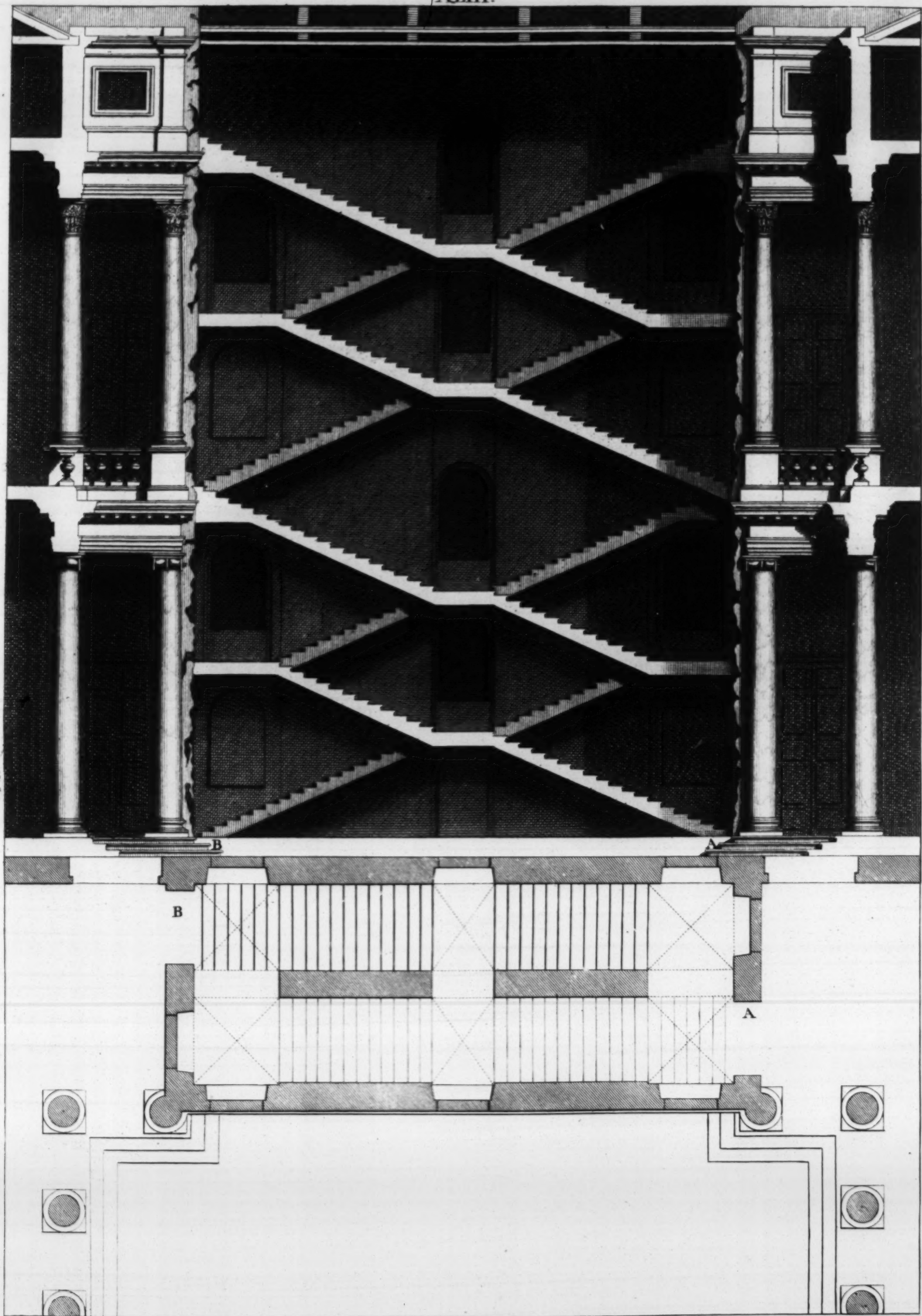














There were also to the *Porticos* of *Pompey* at *Rome*, leading to the *Jews* quarter, three Stairs of the same kind of an admirable form; for being plac'd in the middle of the Edifice, and where they could not receive any light but from above, the Architect had set them upon Columns, to the end that the light might distribute it self to all parts alike. According to this Example, *Bramante*, the most skilful Architect in his time, made one at *Belvedere*; but without Steps, having the four Orders of Architecture, *Dorick*, *Ionick*, *Corinthian* and *Composite*.

To make those *Stair-cases*, the whole space must be divided into four parts, two whereof are for the void space in the middle, and one on each side of the Steps and Columns. There are many other fashions of *Stair-cases* in antient Edifices, as *Triangular*; and of this sort are those of the *Cupola* of *St. Maria Rotunda*, which are open in the middle, and receive Light from above.

\* In the same City those which are in the Church of *Sancto Apostolo*, towards *Monte Cavallo*, are very fine; they were double, and many have since taken Models thereof: they led to a *Temple* seated on the top of the Mountain, as will appear in my Book of *Temples*; and of this sort of Stairs, is the last among the Designs.



## C H A P. XXIX.

### Of ROOFS.



HAVING rais'd the Walls to their intended height, and made the Vaults, laid the Joysts of the Floors, brought up the Stairs, and perform'd all those things we have spoken of hitherto, we are now to raise the *Roof*, which embracing every part of the Building, and with its weight equally pressing upon the Walls, is as a band to all the Work. Besides that it defends the Inhabitants from Rain, from Snow, from the burning of the Sun, and from the moisture of the Night; it is also of no small help to the Building, casting off from the Walls the Rain-water, which altho for a little while seems to do but little hurt, yet in process of time causes much damage. *Vitruvius* says that the first Men built their Houses with flat Roofs, but finding that thereby they were not sufficiently defended from the Weather, ne-

\* Plate XLIII.



cessity made them raise the middle, in order to give the Water its Current. These Roofs are to be rais'd to a higher or lower pitch, according to the Country in which they are. Wherefore in *Germany* they raise their Roofs to a very high pitch and sharp, by reason of the great quantity of Snow that falls there; covering them with *Shingles*, which are small pieces of thin Wood, for fear they would be crush'd by the great weight of the Snow. But we, who dwell in a more temperate Country, ought to chuse a Roof of a handsomer form, allowing only a sufficient Current for the Water. Therefore the breadth of the Building is to be divided into nine parts, two of which will be a sufficient pitch, because if it was done of a fourth, the Roof would be too stiff; and the Tyles, or Slates, would hardly remain upon it; and in making it only of a fifth, it would be so flat, that the Tyles and the Snow must lie too heavy upon them. Gutters are commonly made round the Houses to convey off the Rain Water by Pipes, or Spouts: and over these ought to be laid at least a Foot and a half of Wall, because they will be not only thereby the stronger; but this will preserve the Timber against the Rain, and the moisture of the Weather. There are many ways of framing the Timber of the Roofs, but when the middle Walls bear the Girders, they are easily laid on; and 'tis what I do much approve, because the out-Walls are less press'd, and if any end of the Girder should happen to rot, the Roof would not be in so much danger of falling.

*The End of the First Book.*





THE  
ARCHITECTURE  
OF  
A. PALLADIO;  
BOOK *the* SECOND.

CONTAINING

The DESIGNS of several Houses which he has  
Built either in TOWN, or in the COUNTRY.

WITH

Some other DESIGNS of the Manner of Building amongst the  
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Revis'd, Design'd, and Publish'd

By GIACOMO LEONI, a Venetian; *Architect to His most*  
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ELECTOR PALATINE.

*Translated from the Italian Original.*



Printed for the AUTHOR.



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By W. D. Jones, and Thomas  
D. G. Jones, Architects, and Thomas  
D. G. Jones, Esq., Surveyor

THE SECOND PART

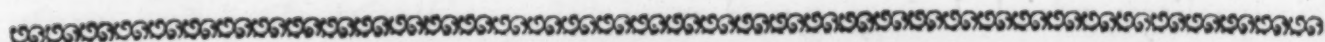
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Printed for the Author



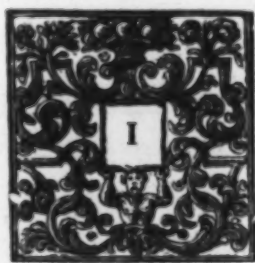


# THE SECOND BOOK.



## CHAP. I.

*Of the good Grace, Suitableness, and Proportion  
which ought to be observ'd in private Buildings.*



HAVE treated in the foregoing Book, of all those things which I thought most necessary to be observ'd in the construction of publick and private Buildings, in order to make them beautiful, convenient, and durable. I have also said something about the Conveniencies of private Gentlemen's Houses, of which I particularly design to speak in this second Book.

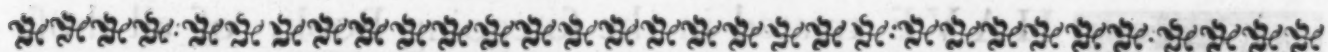
And because we commonly call a House convenient, when it is suitable to the quality of its Master, and that all the parts of it not only have a proportion answerable to the whole, but also an exact symmetry each with one another; an Architect therefore must chiefly observe, what *Vitruvius* recommends in his first and sixth Books, *viz.* that when he builds for Persons of Quality, and more especially for those that are in publick Employment, he must build their Palaces with Portico's, Galleries, and large stately Halls richly adorn'd: that those who come for business, or to pay their respects to the Owner, may be receiv'd commodiously, and delighted and amus'd whilst they wait for him. But for those of a meaner Station, there must be a medium observ'd, as well in the size and form of the Building, as in the Ornaments and Expence. Judges and Counsellors Houses must also have places fit to walk in, and where their Clients may wait without being weary. Those of Merchants require Warehouses, and other places expos'd to the North, wherein they may keep their Goods and other Commodities; and those places must be so dispos'd, that the Masters may have no occasion to fear Thieves coming at them. One must also observe

R

such




such a proportion, that every Member of the Building may agree with the whole; so that either in great, small, or ordinary Buildings, one may observe the parts, to be great, small, or ordinary, suitable to their several Extents. For without doubt it would be a great fault, and a thing very disagreeable, if in a large Edifice all the Halls and Rooms were small; or if in a small House, two or three great Rooms should take up the whole. One must then (as I said just now) have regard, as much as possible, to the quality of the Gentleman who builds, more than to his wealth, and make him a House suitable to his quality: which being agreed upon, the parts of the Building must be so adjusted, that they all may agree with the whole, and every one with each other, with such Ornaments as are suitable to them. But it frequently so happens, that the Architect is oblig'd rather to follow the fancy of him who intends to build, than those Considerations which his Art and Judgment dictate to him.



## CHAP. II.

### *Of the Compartment or Distribution of Chambers and other Places.*

 O make Houses convenient for a Family, (without which they cannot be approv'd of by any body) one must take a great deal of care, not only in what concerns the chief parts of them, *viz.* the Entries, Halls, Courts, great Rooms, light Staircases (spacious and easy to go up and down) but also that the meanest and least beautiful of them may be situated commodiously to serve the other greater and more considerable Apartments. For in the same manner as we see in the human Body, some noble and beautiful Members, and others again as disagreeable and ugly, which last are nevertheless very useful to the first, and without which they could not subsist; so some parts of a Building must make a fine and noble appearance, and some others be less beautiful and elegant, without which the chief ones could not be distinguish'd, but rather lose a part of their dignity and perfection. But as our blessed Lord has order'd our Members, so as to make the finest of them to be the most expos'd to sight, and concealing them that are not seemingly so: just so we must contrive a Building in such a manner, that the finest and most noble parts of it be the most expos'd to publick view, and the less agreeable dispos'd in by-places, and remov'd



remov'd from sight as much as possible; because thither ought to be carry'd the refuse of the House, and whatever may produce any ill effect or embarrassment. For this reason I approve, that the Cellars, Wood-houses, Pantries, Kitchen, Servant's Halls, Landries, Ovens, and other Offices which are continually used, should be placed in the lower part of the Building, and which I commonly order a little under ground. This distribution has two advantages: the first is, that the Apartment above is altogether free from the said Incumbrances; and the second, which is of no less consequence than the former, is, that the said Apartment is thereby much wholesomer, its Floor being free from the moisture of the Ground, besides that its being high renders it more graceful, and contributes to a better prospect. Care must be taken next, that in the rest of the Building there be large, middle siz'd, and small Rooms; and that they be all near one another, for the better Communication between them. Convenient Partitions must be also contriv'd for Closets, Libraries, Horse-Furniture, and to put out of the way other things which one may have daily occasion for, and which would appear very unseemly in a Bed-chamber, Dining-room, or place where Strangers are receiv'd. It is also convenient that the Summer-rooms be large and spacious, and open to the North; and the Winter ones smaller and open to the South and West; because that in Summer we seek the Air and Shade, and that in Winter we seek the Sun, as well as by reason little Rooms are easier warm'd than larger ones. But the Rooms design'd for Spring and Autumn should look towards the East, and have their prospect towards Greens and Gardens. Studies and Closets must also have the same prospect, because the Morning is the best time of resorting to such places. All the Rooms in general, either large, middle sized, or small, ought to be so order'd or contriv'd, that (as I have already said) every part of the Building may correspond one with the other, and the whole frame shew such a convenience and symmetry between all its parts, as may render it handsome and agreeable. But because it most commonly happens that in Cities, either the Party-walls, the Streets, or publick Places confine and restrain an Architect within certain bounds, beyond which he has not the liberty to go; therefore necessity compels him to suit himself with the place according to its Situation: and on those occasions, if I am not mistaken, one may receive some benefit from the Plans and Elevations I am now going to give; which may also serve as Examples for what I have already said in my first Book.

\* This



\* This Plate represents half a *Vicentine* Foot, half a *French* Foot, and half an *English* Foot.

All the following draughts have been made and measured according to the *Vicentine* Foot, which is here divided into 12 Inches, and every Inch into 12 parts, as are also the *French* and *English* Foot.

N. B. That the *French* Foot, commonly called *Pié de Roy*, is equal to 11 Inches of the *Vicentine* Foot, and the *English* one makes only 10 Inches one quarter of the same.



### C H A P. III.

#### *Of the Construction of Houses in Towns.*



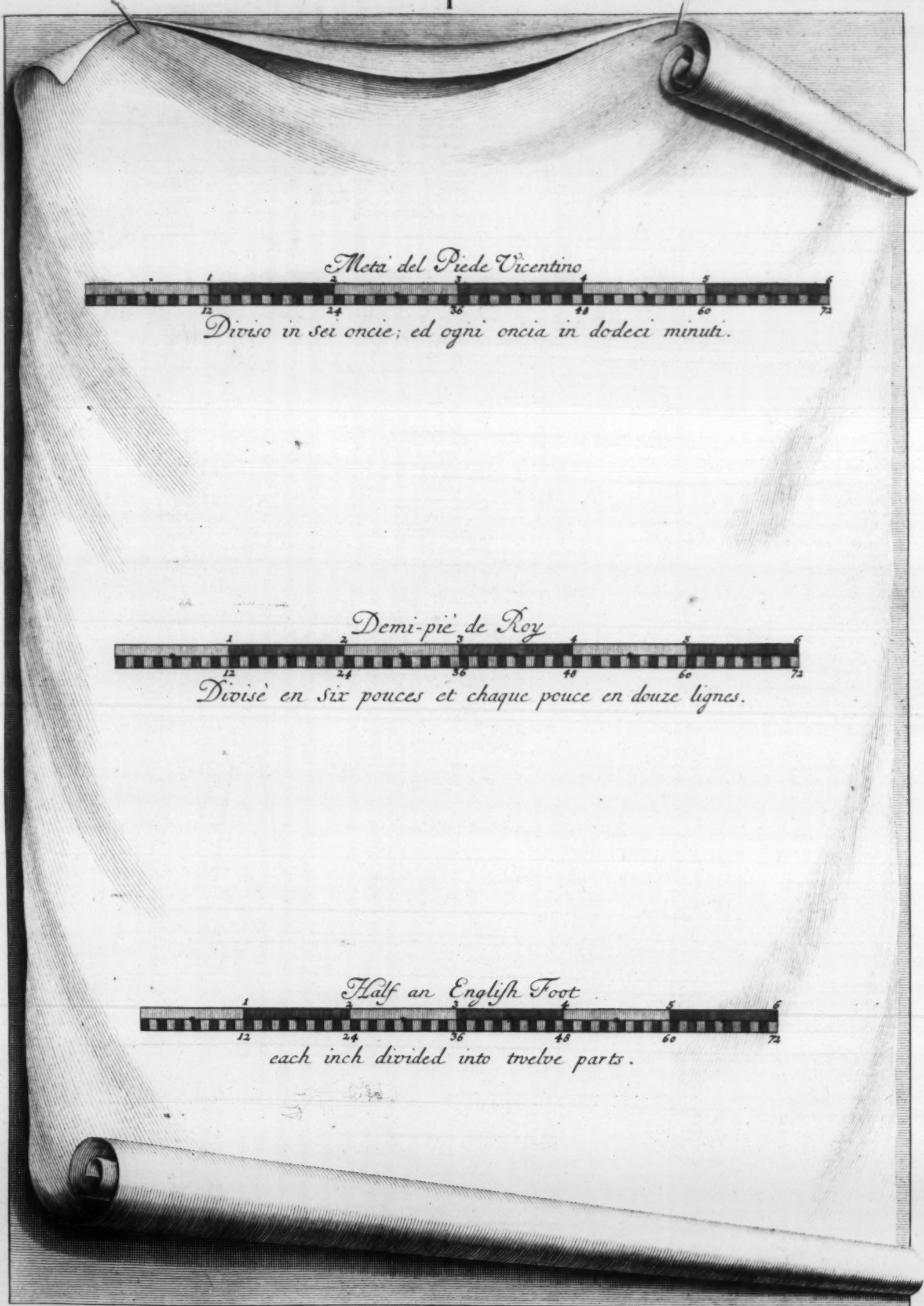
Am sure that they, who shall look upon the Buildings I am going to give the draughts of in this Book, and they, who know how hard it is to introduce a new way, particularly into the art of Building (in which every one presumes to be knowing) will think me very happy, that I have met with Persons who were generous, judicious, and reasonable enough to hear and approve my Reasons; and afterwards to give over that old way of Building, which is without any proportion or grace at all: and indeed I own it as a particular favour God has done me amongst many others, to give me an opportunity of putting several things in practice, which I had learnt by a very laborious Examen and long Study. And tho among those very Buildings some have remain'd unfinish'd, yet it is very easy to judge by what is done, what the whole wou'd have been. I have put the names of the Owners, and the places where the Buildings are situated, to their Draughts; that they who have a mind, may see how they have succeeded in the performance. After this I think it very proper to acquaint the Reader, that I have had no regard to the Rank or Quality of the Persons in the order of my Draughts; for they are every one of great Quality and Honour, and I plac'd them only as they came first to my Memory.

But it is now time to come to our Buildings, the first of which is at † *Udena* the Metropolis of *Friuli*. It was built from the Foundations by Signior *Floriano Antonini*, a Gentleman of the same

\* Plate I.

† Plate II.





*Metà del Piede Vicentino*



*Diviso in sei oncie; ed ogni oncia in dodeci minuti.*

*Demi-pie' de Roy*



*Divisé en six pouces et chaque pouce en douze lignes.*

*Half an English Foot*



*each inch divided into twelve parts.*



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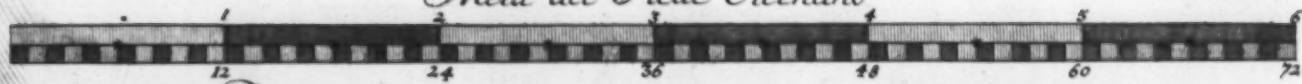
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*Half an English Foot*

*each inch divided into twelve parts.*

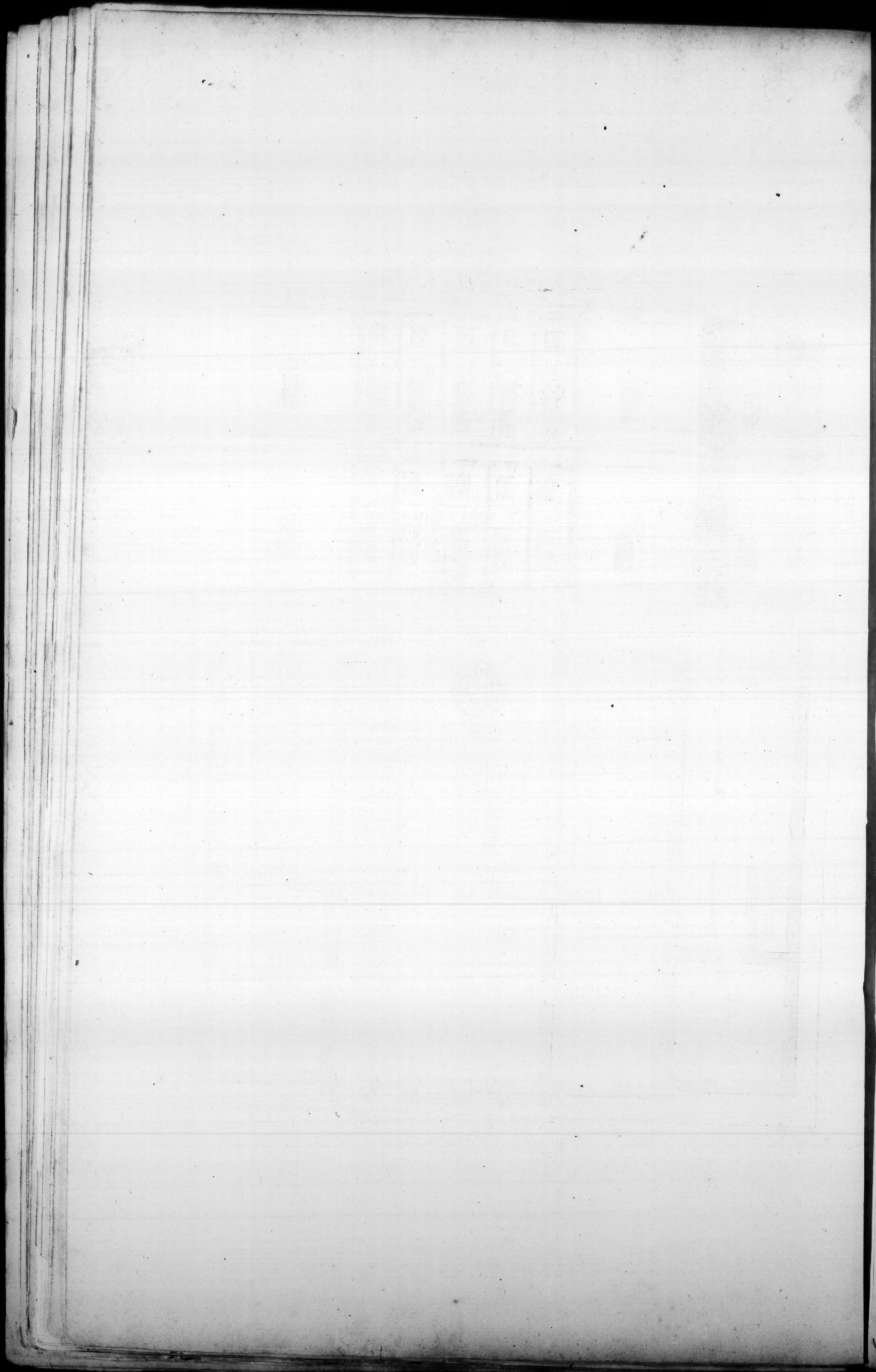








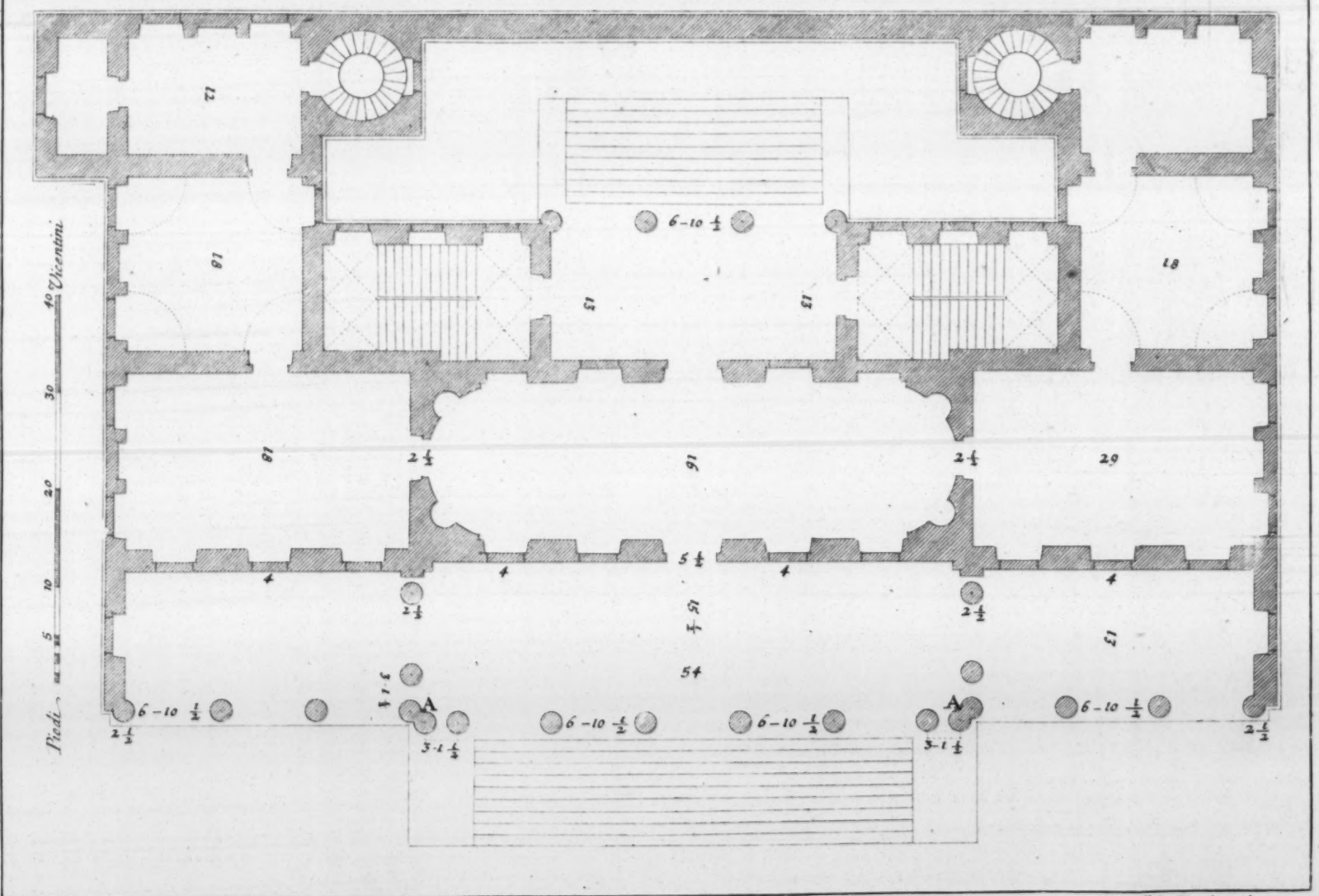
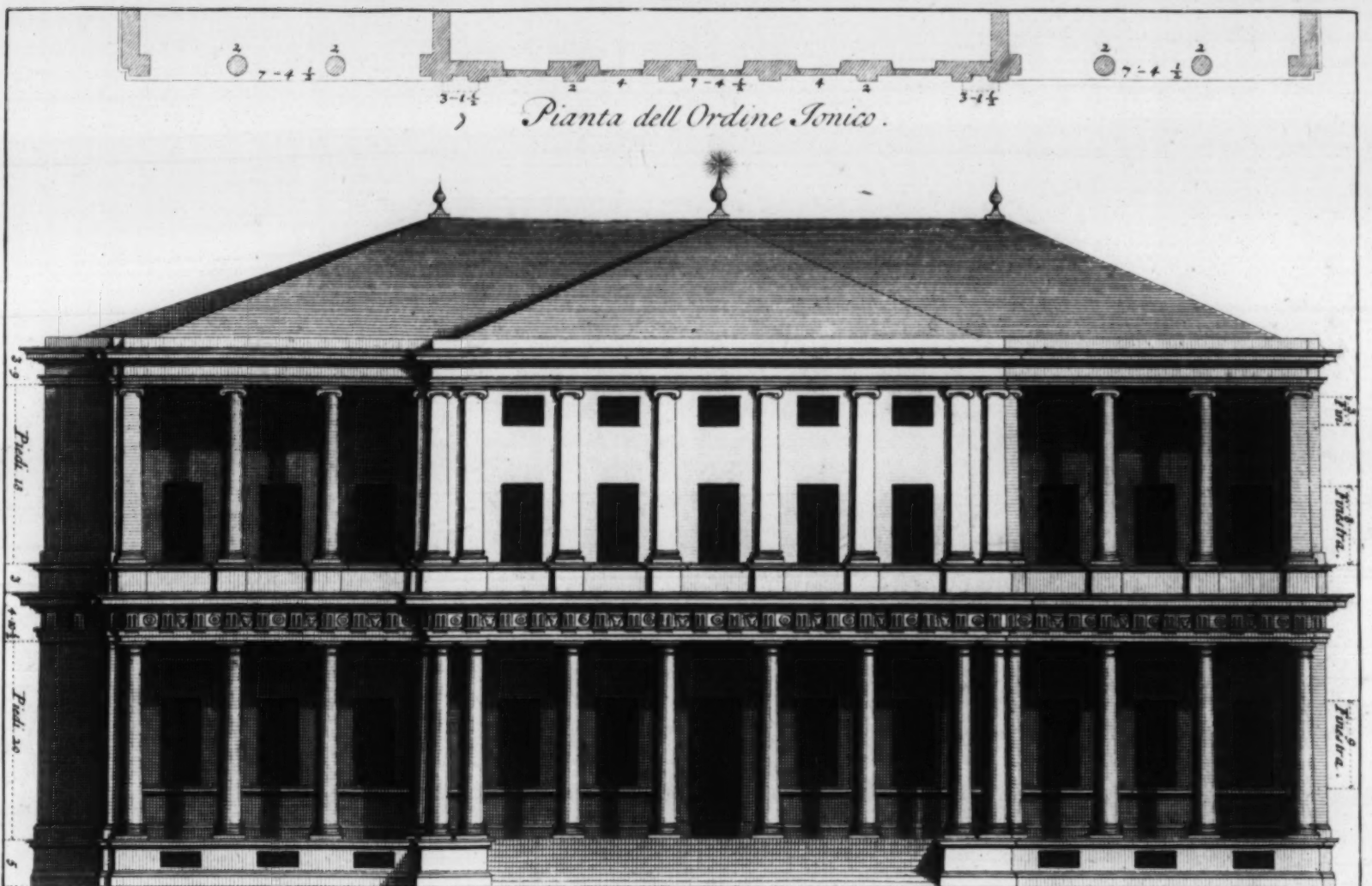














Town. The Ground-floor Wall of the fore-front is Rustick; and the Columns of the Vestibule and Gallery backwards are Ionick. The first Chambers are arch'd; and the Arches of the largest are made according to the first method I spoke of, concerning the Arches or Vaults that are in places longer than broad. The Chambers of the second Story are ceil'd, and are a little broader than the lower ones, because of the diminution of the Walls; the height of the Ceilings being equal to their breadth. There are other Chambers higher, that may serve for Garrets. The Hall is so high that it reaches to the very Roof. The Kitchen is separated from the body of the House; but for all that it's very convenient. Near the great Stairs is the House of Office, which tho in the body of the House, does not give any ill smell, being in a place whereon the Sun does not shine, and having vents made in the thickness of the Wall from the bottom of the Pit to the very top of the House, through which the offensive smell is evaporated.

At *Vicenza*, on the place vulgarly called the Isle, Count *Valerio Chiericato*, an honourable Knight of the same Town, caus'd the following design \* to be executed. This Building has a great Portico or Gallery in the lower part, that takes up the whole fore-front of it. The Base of the first Order is five foot above the ground, which is so dispos'd that the Cellars may be underneath it, as also all the other Offices intended for the convenience of the House; which had not succeeded so well, were they quite under ground; because of the neighbourhood of the River, and that thereby the upper Stories should be more airy, and have a far better prospect. The Vaults or Arches of the great Rooms are rais'd according to our first method, or first rate of Arches: the lesser ones are arch'd shell-like, and are as high as those of the largest sort: the Closets are also arch'd, and have Mezzanino's or half Stories above them. Every Arch is adorn'd with compartitions of Fret-work curiously wrought by *Bartolomeo Ridolfi*, a Sculptor of *Verona*, with several excellent pieces of Painting done by *Messer Domenico Rizzo*, and *Messer Battista Venetiano*, men very famous in those Professions. The Hall is in the middle of the Fore-front above, and occupies the middle of the Gallery beneath. Its height reaches to the Roof of the House, and because it projects a little outwards, its Angles are supported by double Columns. On each side of this Hall are Galleries, the Cielings of which are adorn'd with Pictures that

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\* Plate III.



are extremely fine, and make a glorious show. The first order of the Fore-front is Dorick, and the second Ionick. This following design \* represents part of the Fore-front enlarg'd.

The next draughts † are of Count *Isseppo de Porti's* House, a noble Family in the same City. This Building fronts two large Streets, and therefore has two Entries or Vestibules with four Columns each, which bear an Arch to secure the superincumbent weight. The Rooms of the first Story are arch'd; the height of those on the sides of the Vestibule are after our second method of Arches. The Rooms of the second order are ceil'd, and all painted, as well as those of the first Story, and set off with very rich Ornaments of Fret-work, made by those Artists we spoke of before; and the Pictures are made by *Paul Veronese* a most famous Painter. From each of these Entries one may go through a Passage into a Court that is to be surrounded with a Portico; the Pillars of which are  $36\frac{1}{2}$  Foot high, which is the whole height of the first and second Stories. Behind these Columns are Pilasters that are one Foot and 9 Inches diameter, and they project outwards ‡, supporting the Pavement of the upper Gallery. This Court divides the whole House into two parts. The fore part is for the Master and his Women, and the back part is design'd for the reception of Strangers: that the one and the other may pass to and fro with more freedom, a thing to which the Antients, and particularly the *Grecians*, had a special regard. And moreover this way of dividing a House may be also very convenient, in case the Children or any of the Family should require private Apartments. I plac'd the principal Stair-cases under the Portico, which is just opposite to the middle of the Court; that those who go up and down may necessarily have a prospect of the most beautiful part of the House, and that being in the middle, they may serve the two separate parts of the Fabrick. The Cellars and other Offices are under Ground. The Stables are separate from the body of the House, and have their Entries under the Stair-cases.

\*\* The first of the two great draughts represents a part of the fore-front; and the second, that side that fronts the Court.

\*† The following House is at *Verona*, which was begun by Count *Gianni Battista della Torre*, a Gentleman of the same City, whose Death put a stop to its finishing, tho it was very far advanc'd. The Entries are by the sides of it, where there are passages ten Foot broad, which lead to the Courts fifty Foot long,

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\* Plate IV. † Plate V. \*\* Plate VI. and VII. \*† Plate VIII.

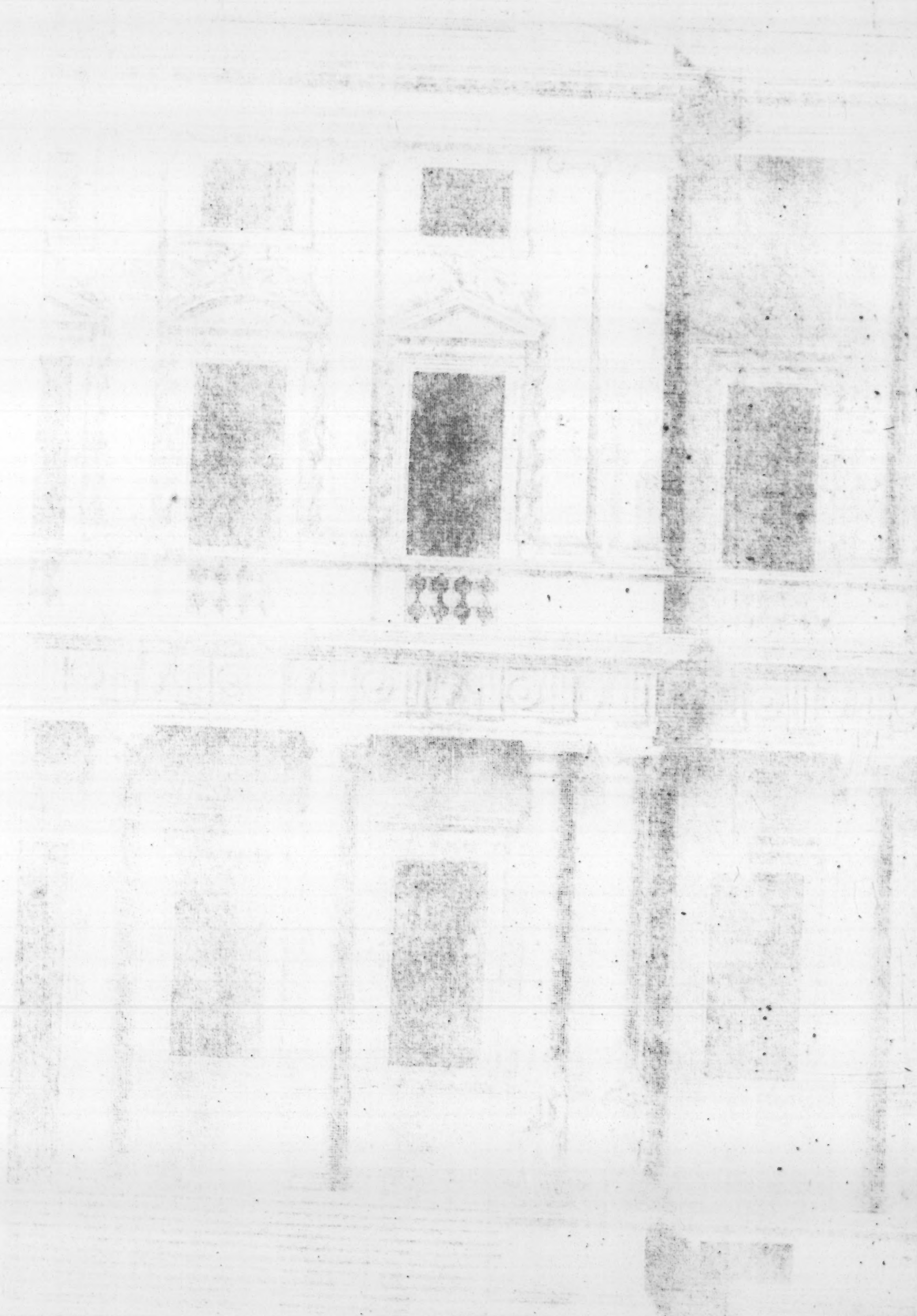




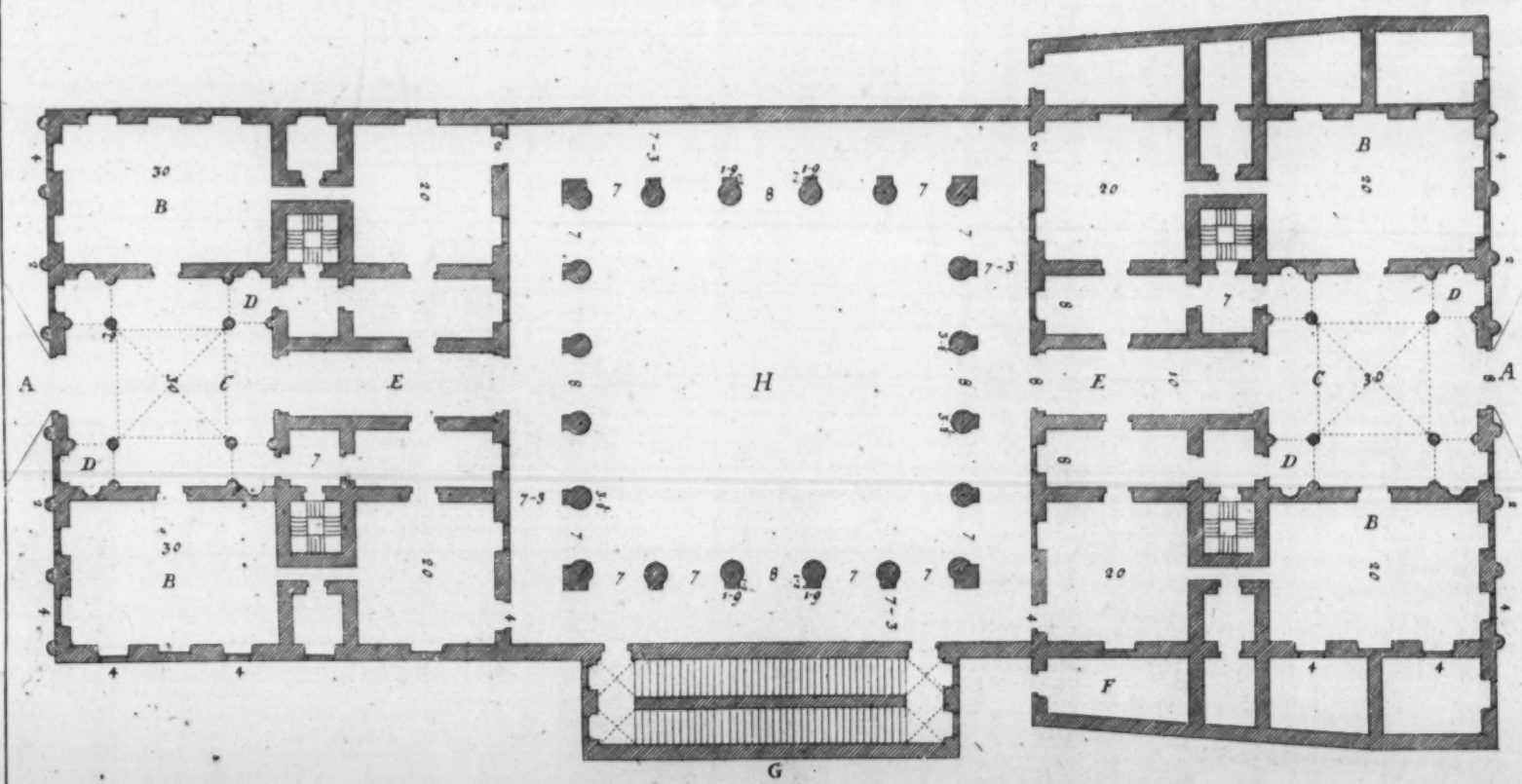
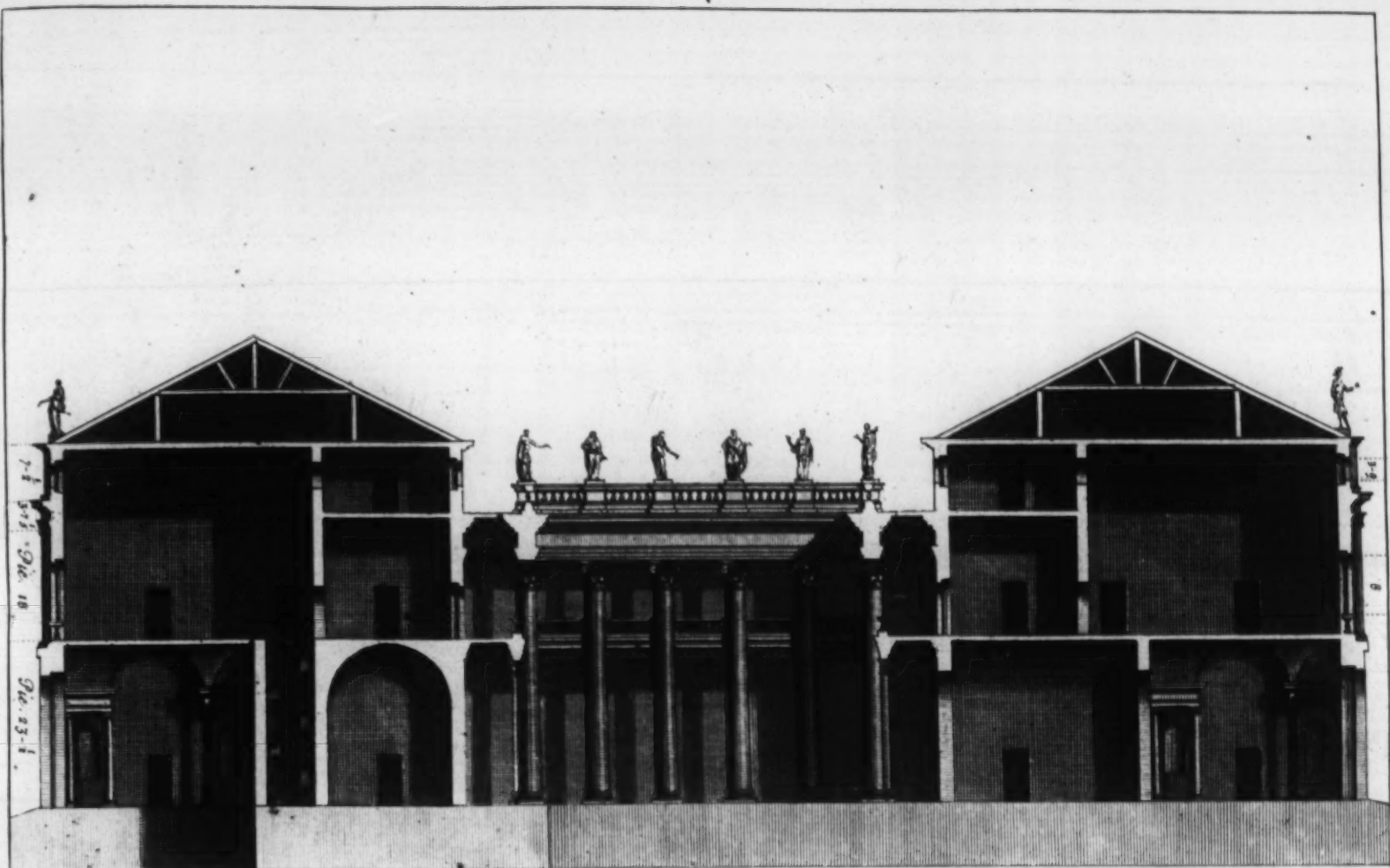
Gravé sous la conduite de B. Picart en 1725.

6 = 10 2 2 4 2 6 = 10 2 2 2









Piedi 5 10 20 30 40 50 60 70 80 90 100

Vicentini

I. Harris fecit.

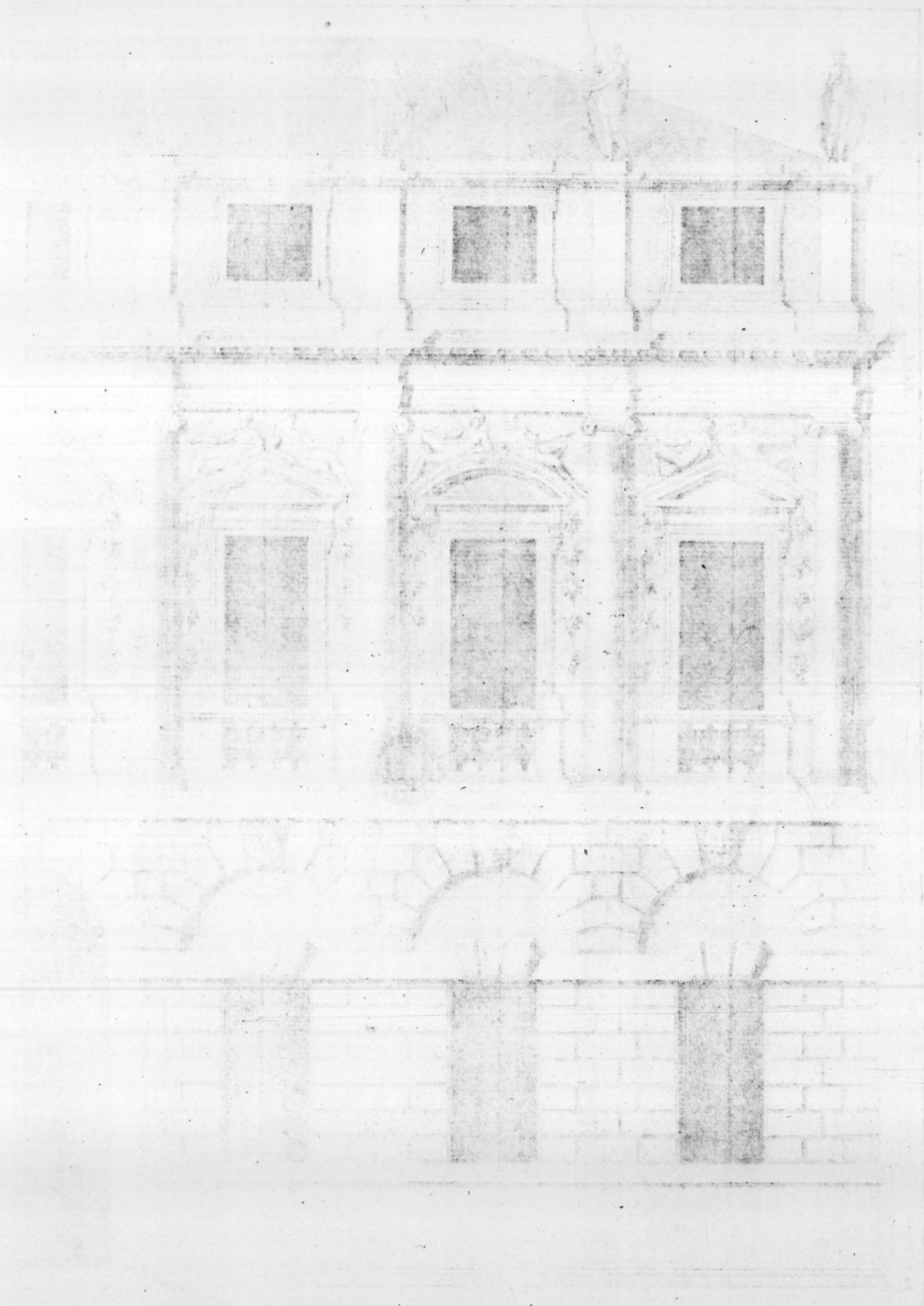




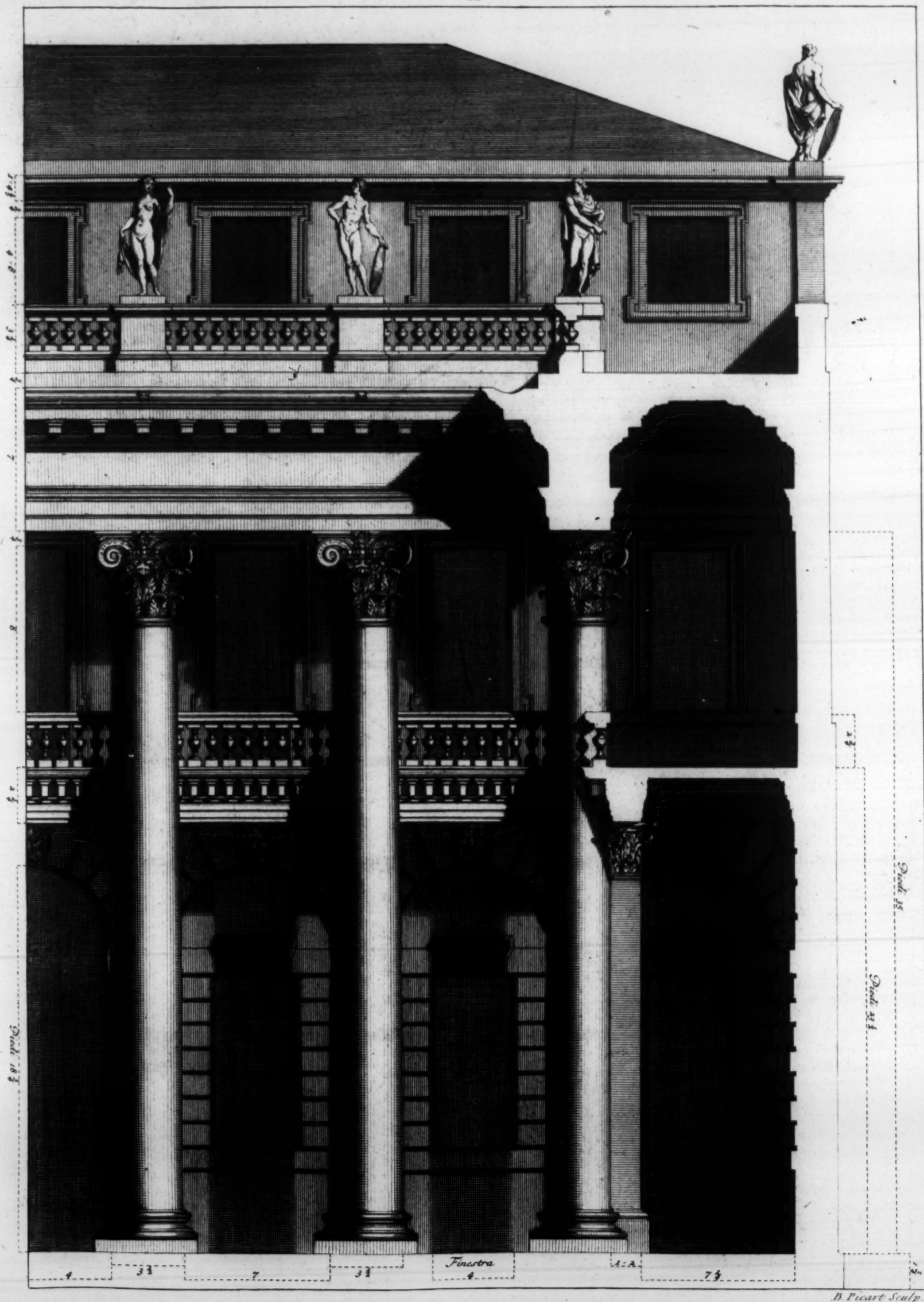




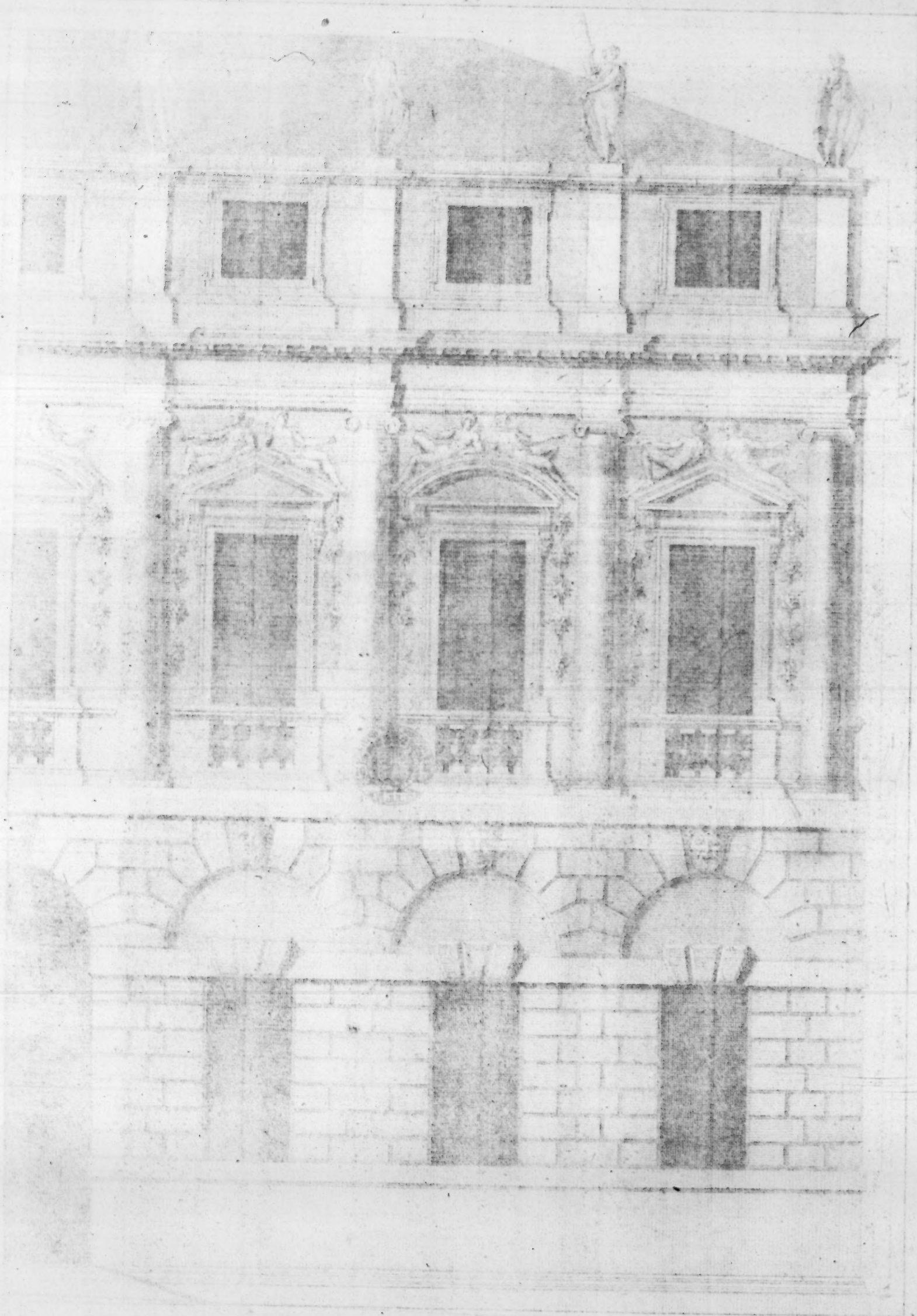




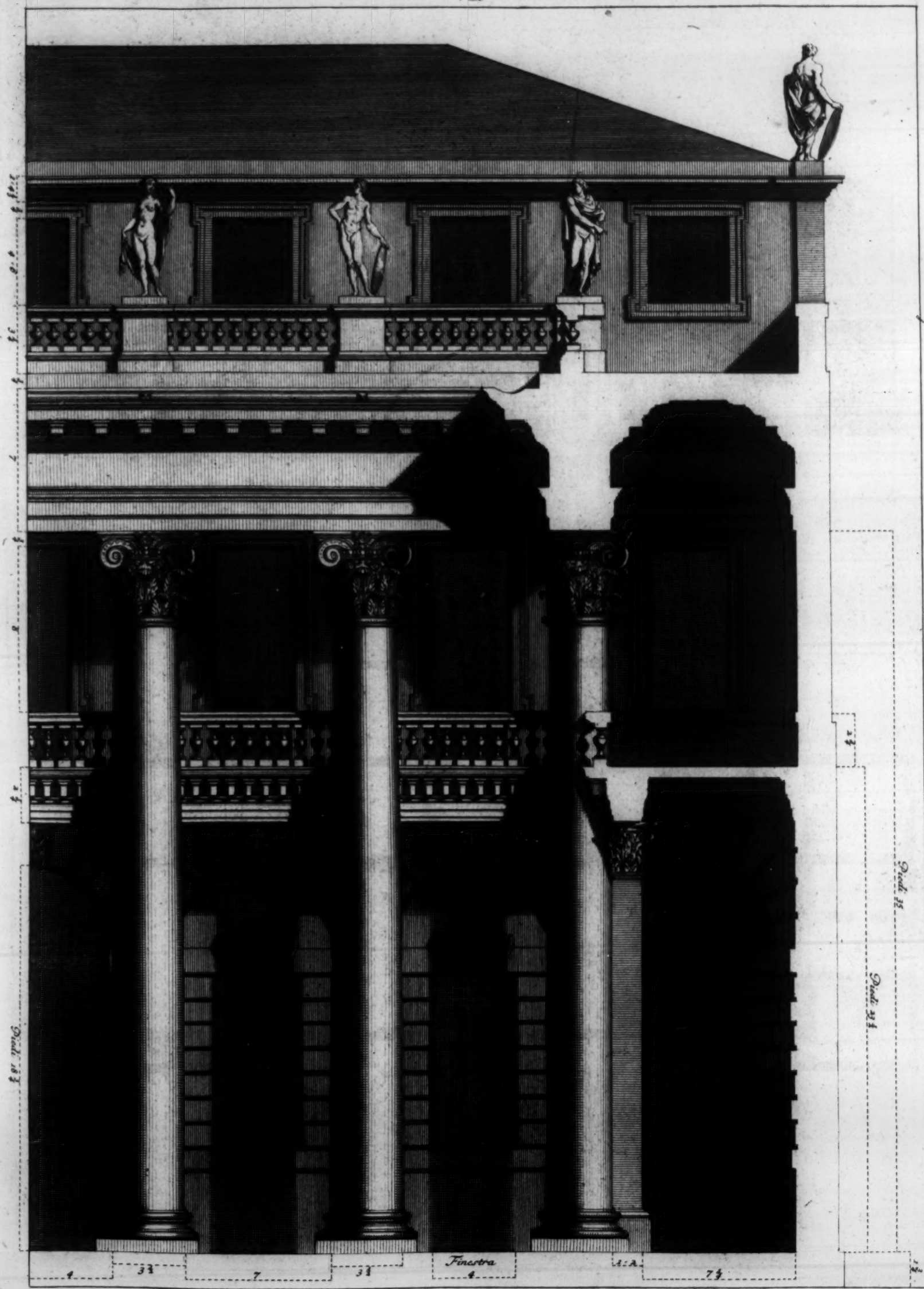








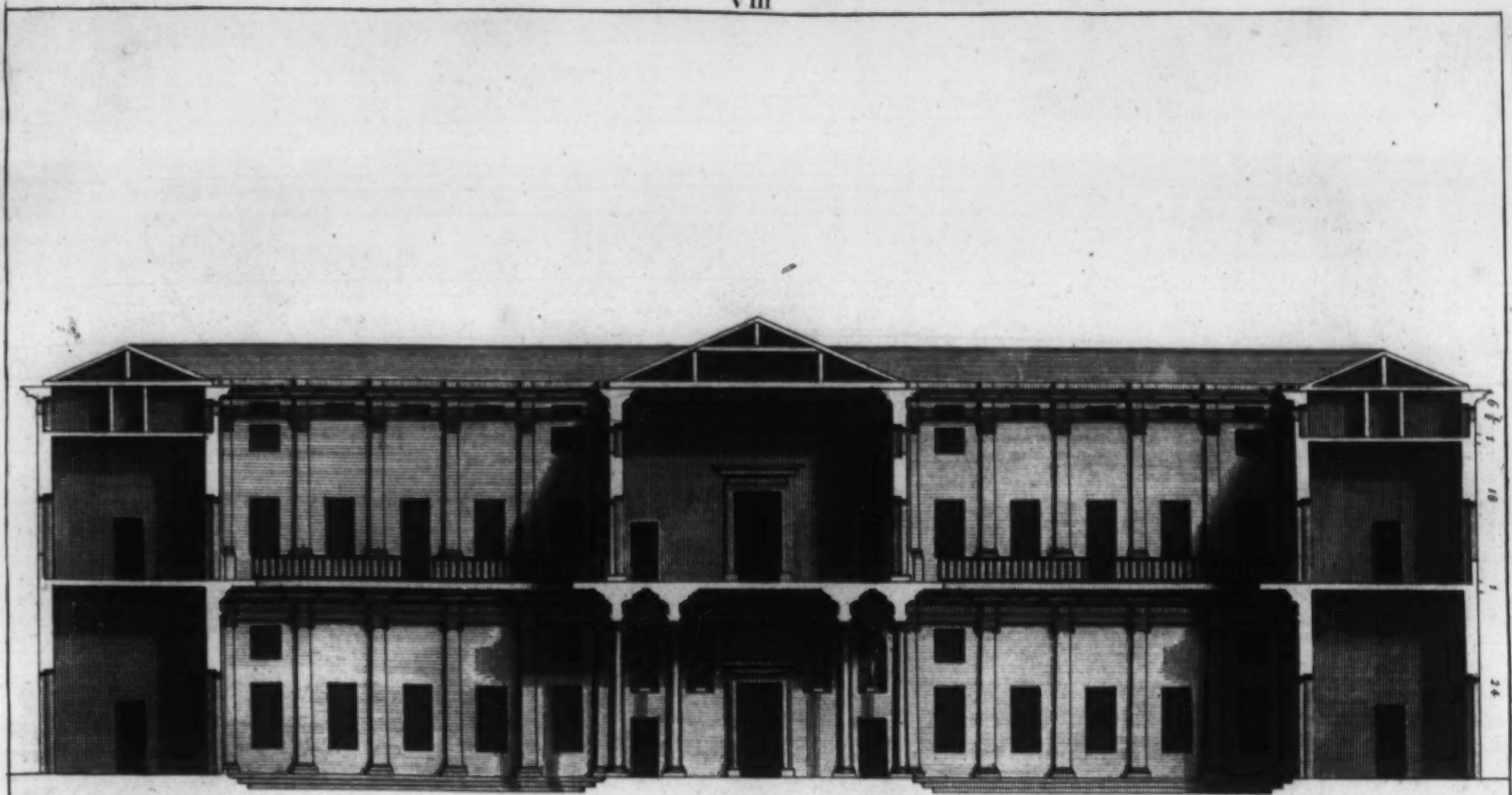




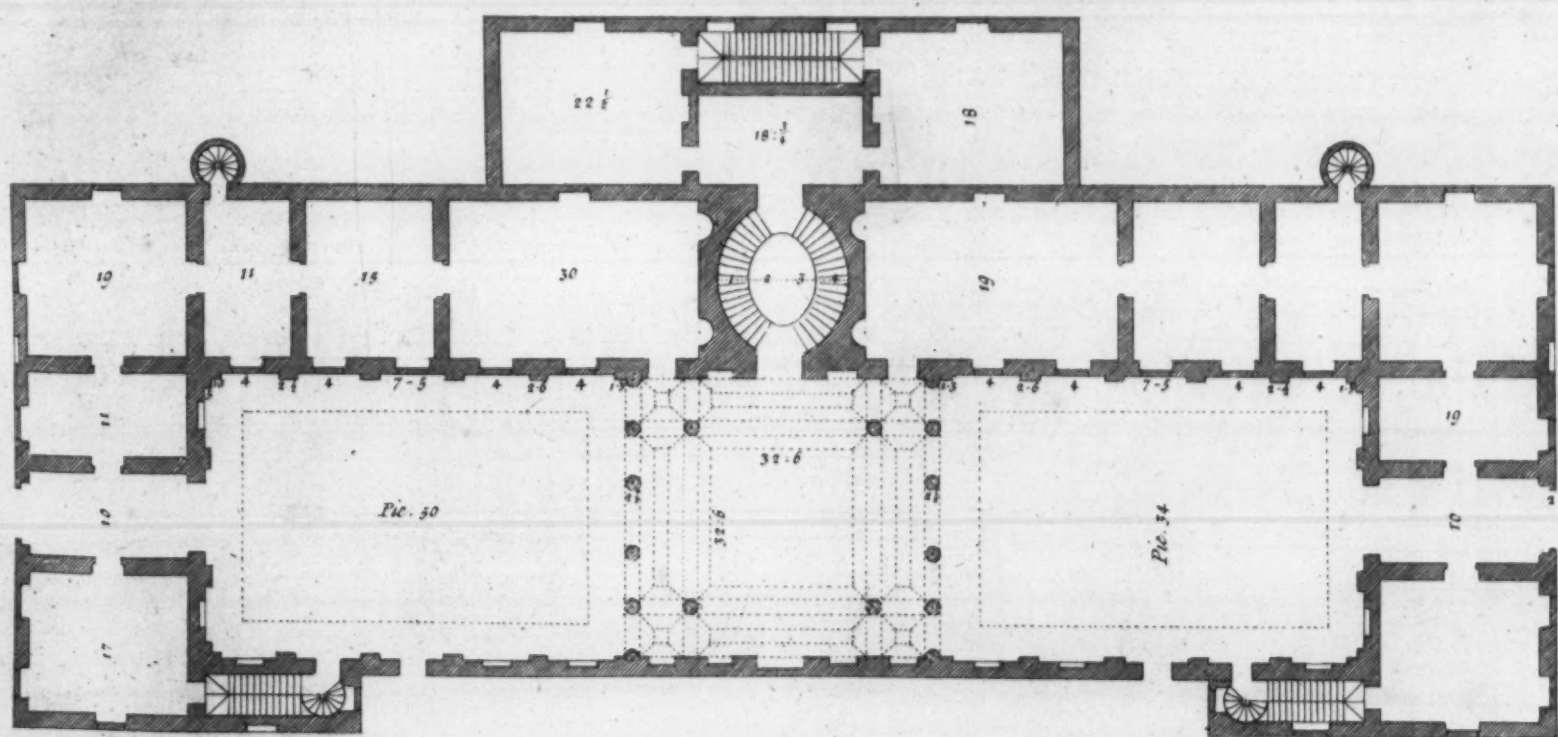








Piedi 5 10 20 30 40 50 Vicentini



L. Harris fecit

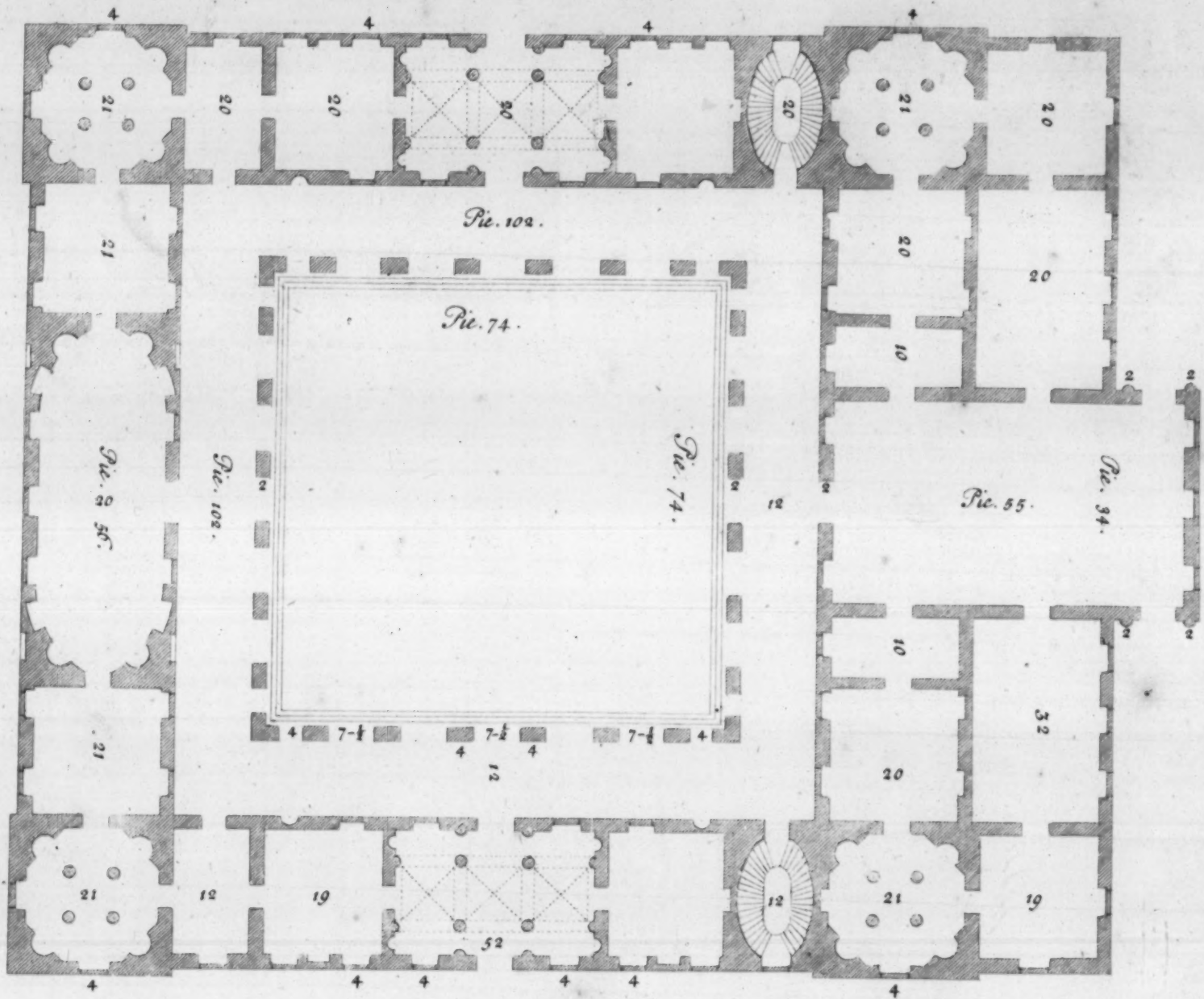




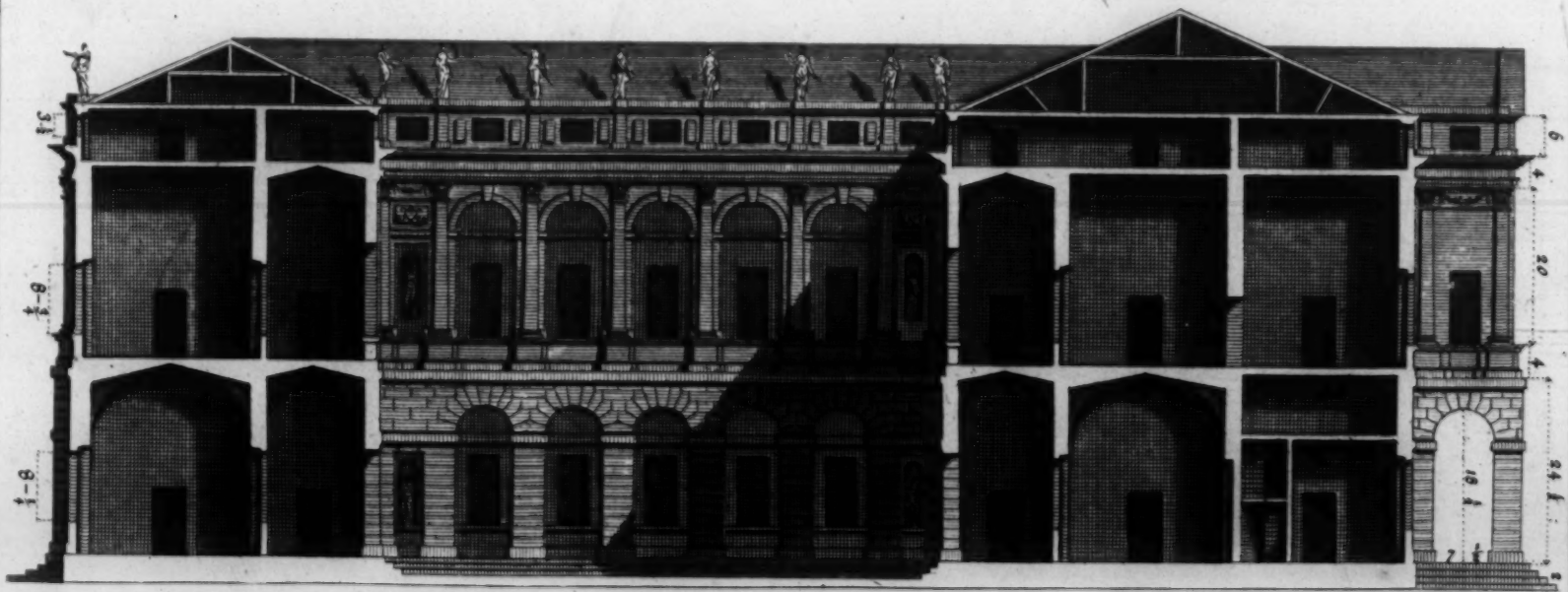






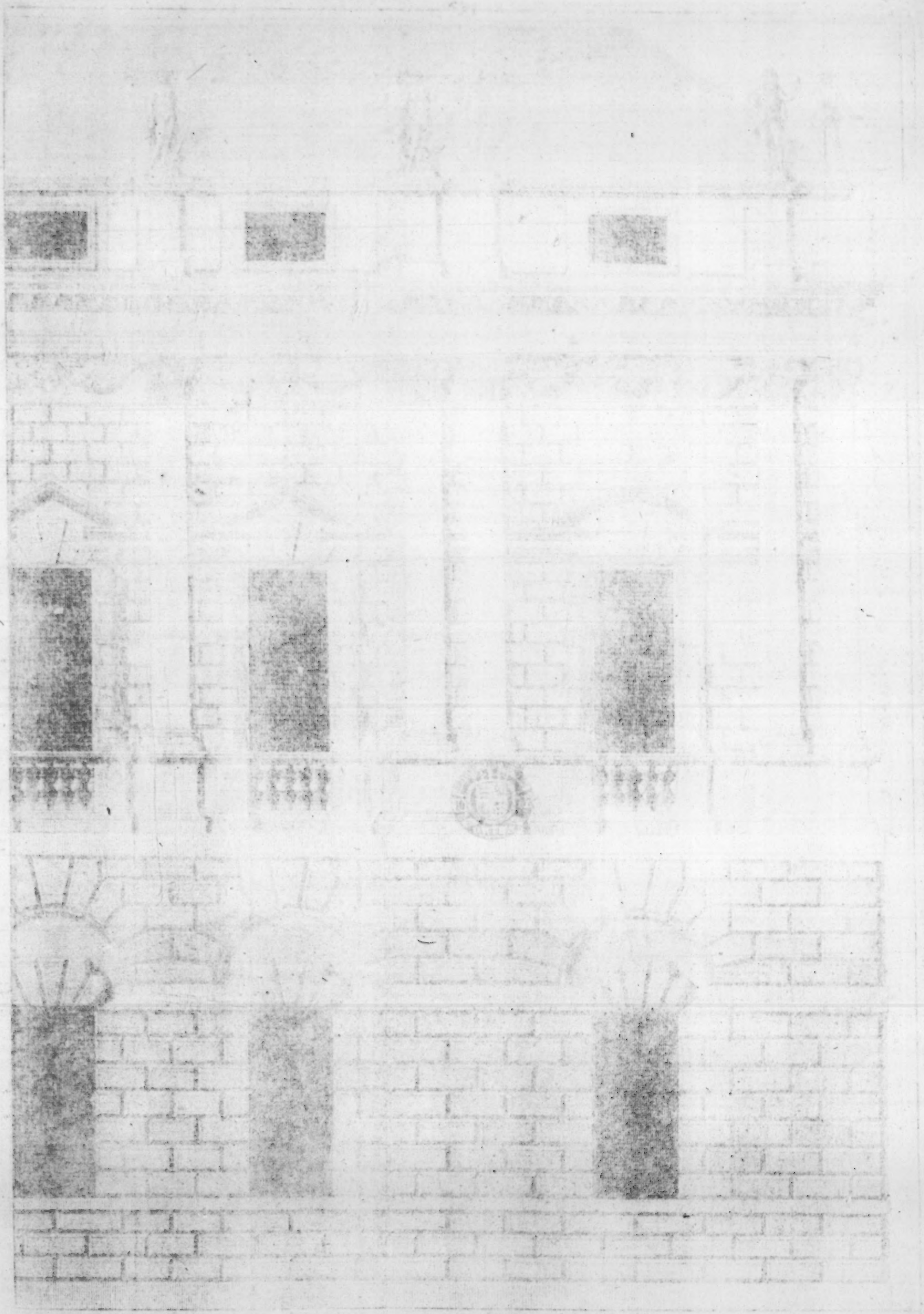


Piedi 70 60 50 40 30 20 10 5 Vicentini

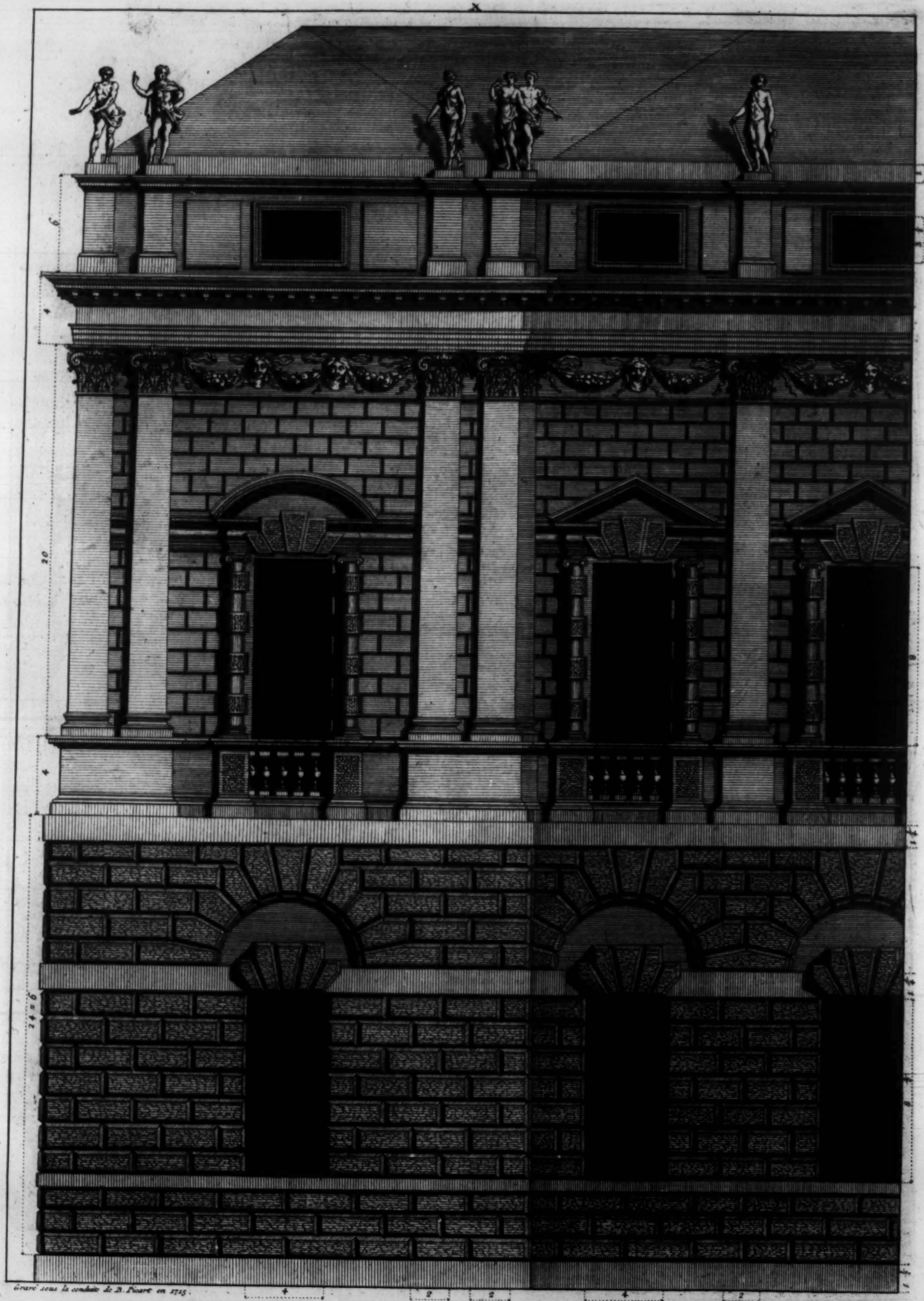


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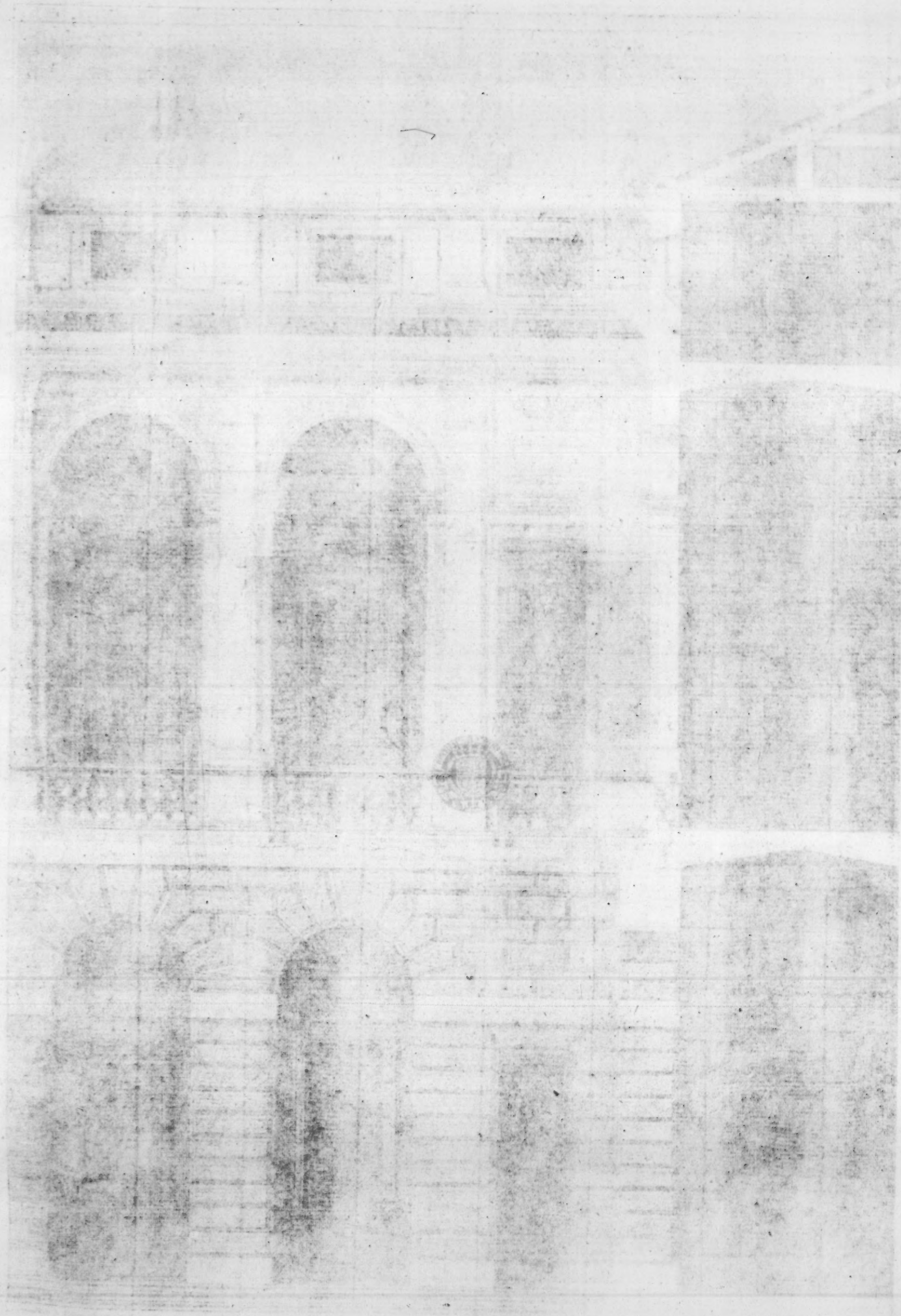


















and from thence to an open Hall, adorn'd with four Columns, which serve also to support securely the upper Hall. This same Hall leads to the Stair-case, which is of an elliptical form, and open in the middle. The said Courts are surrounded with Ballustrades, that are level with the second Floor. The other private Stairs serve for a greater Conveniency throughout the whole House. This Comparison succeeds extraordinary well in its Situation, which is long and narrow, and one of the Wings fronting the principal Street of the City.

\* The following is the draught of a Building at *Vicenza*, belonging to Count *Ottaviano de Thiem*, and was begun by Count *Marc Antonio*. This House being situated in the heart of the Town, near the Market-place, I thought it was very proper to leave room for Shops on that side which fronts the Market; the Architect being oblig'd to have some regard for the advantage of those that are at the expence of the Building, when the extent of the Ground will conveniently allow it. Every Shop has over it a half Story for the use of the Shop-keeper, and over these are the Master's Apartments. This House, as one may say, stands in an Island, being surrounded by four Streets. The chief Entry, or Master-gate (as we may speak) has a Gallery before it, and fronts the principal Street of the Town. The great Hall is to be above it, and will project as far out as the Piazza underneath. In the two wings are two other Entries with Columns in the middle, which serve rather to strengthen the upper part, and render its breadth proportionable to its height, than for bare Ornament. By these Entries one passes to a Court surrounded with a Piazza, of which the first row of Pilasters are Rustick, and the second row of the Composite order. The Rooms at the four corners are octangular, and have a good effect, both for their beauty, and the several conveniences to which they may serve. The Chambers that are now finish'd have been adorn'd with very fine Stuccatures made by Messer *Alessandro Vittoria*, and Messer *Bartolomeo Ridolfi*, and painted by *Anselmo Canera*, and *Bernardino India*, both of *Verona*, and not inferior to the best Masters in their profession. The Cellars and such like places are under Ground, because the Building is situated in the highest part of the Town, where there is no great fear of Water.

† The first of the two great draughts following represents a part of the fore-front of the House, the second that side which fronts the Court.

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\* Plate IX.

† Plate X. and XI.



The Counts *Valmarana*, of a most noble Family of the same place, have also built according to the following designs, \* not only for their own honour and conveniency, but also for the ornament and glory of their Country. They have left nothing wanting which may be desir'd in the enriching of such a Building either for Stuccature or Painting. This House is divided into two parts by a Court in the middle, about which there is a Corridor with Ballusters, which leads from the fore part of the House to that which is behind the Court. The Chambers of the first Floor are arch'd; and the upper ones are ceil'd, of which the height is equal to their breadth. The Garden before the Stables is 120 Foot long by 60 Foot wide. I think this description is sufficient for what concerns this House, all the rest being easily seen in the Plan of it, where I have set down the measure and size of every part, in the same manner as in the foregoing ones.

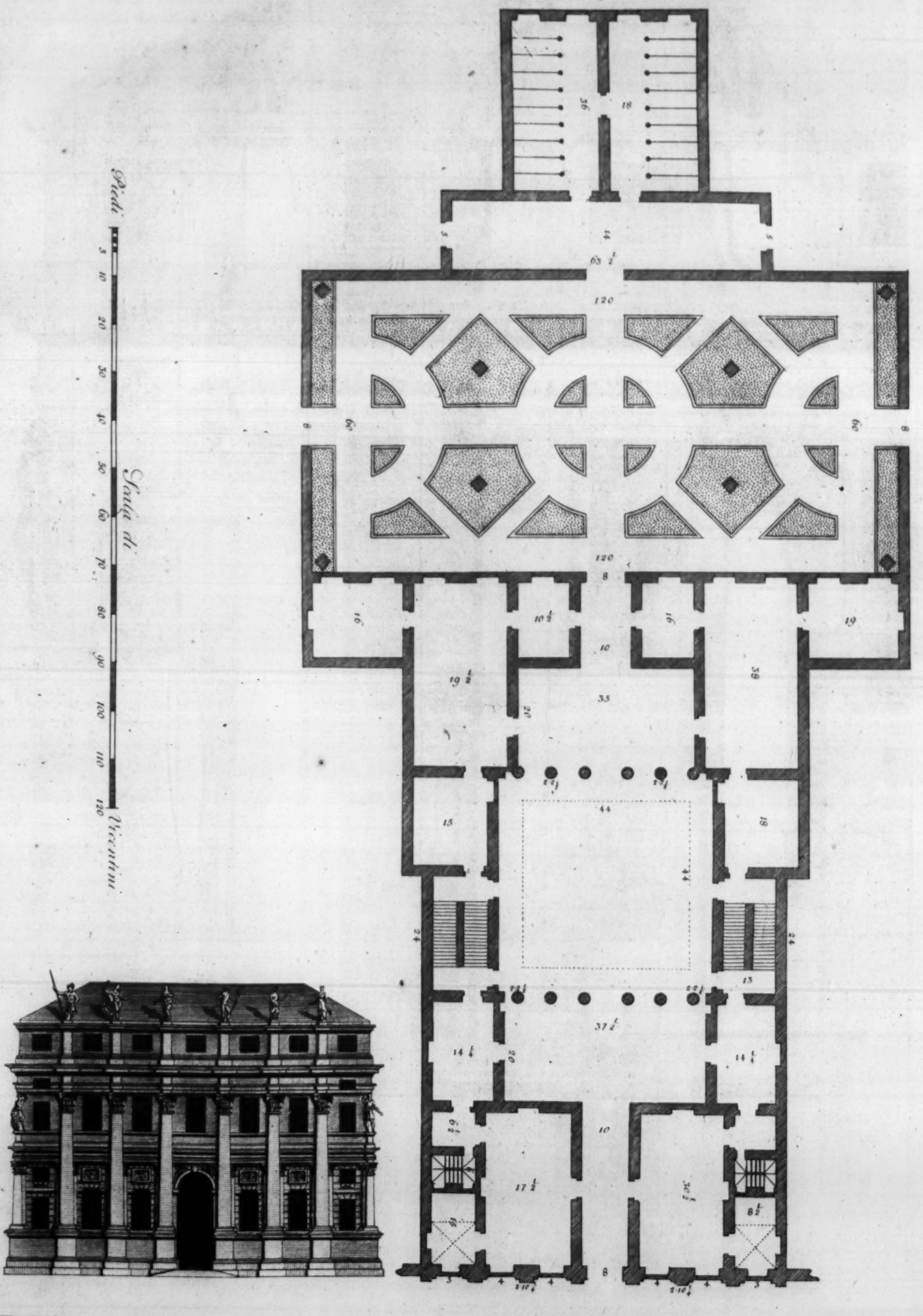
† The draught that follows is one half of the fore front on a large Scale.

Amongst several worthy Gentlemen of *Vicenza*, there is Signor *Paolo Armerico*, who was Referendary to the Popes *Pius* the fourth and fifth, and deserv'd to be made a Citizen of *Rome*; as well as all his Family for his sake. This Gentleman, after having travell'd a long time to improve himself, being come to settle at last in his own Country, after the death of all his Friends, chose his abode at a Country-house he had on a Hill, within less than half a Mile of the Town, where he since has built the following House \*\*, which I have not plac'd among the Country-houses, because of its proximity to the Town, to which one may properly say it belongs. Its Situation is as advantageous and delicious as can be desir'd, being seated on a hillock of a most easy ascent, at the foot of which runs the *Bacchilione*, a navigable River. On the other side, it is surrounded by several Hills, that seem to form a great Theatre, and which besides are all of them cultivated, being very fertile, abounding with excellent Fruits and Vineyards: so that having the advantage of fine Prospects on all sides, some confin'd, some more remote, and some farther than the sight can reach, I have made Portico's to all the fore fronts; under the which, and also of the Hall, I have contrived Rooms for the use and conveniency of those of the Family. The Hall which is circular, and plac'd in the middle of the Building, receives its Light from the top. The Closets have *Mezzanino's*. Above the great Rooms surround-

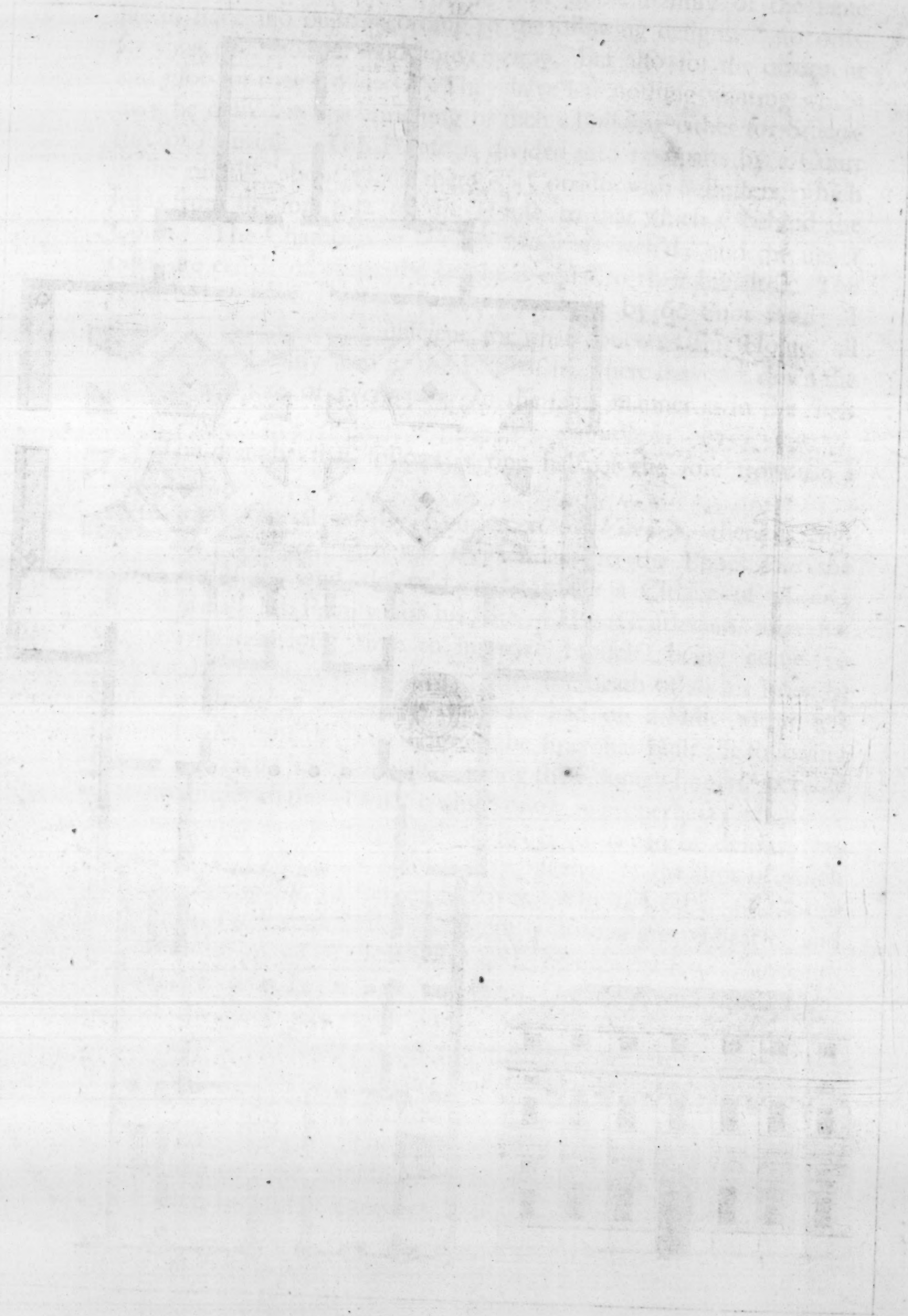
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\* Plate XII. † Plate XIII. \*\* Plate XIV. and XV.





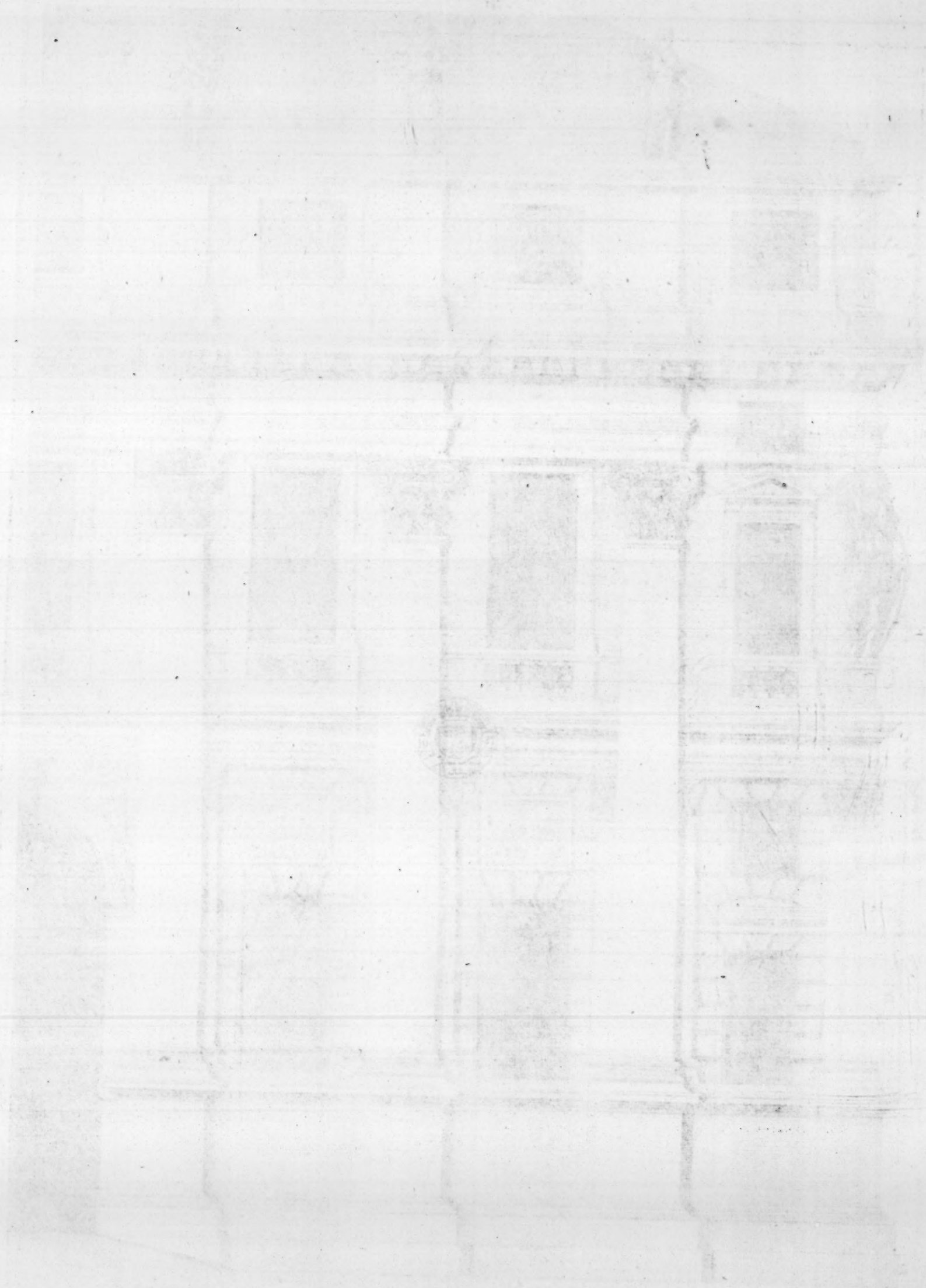




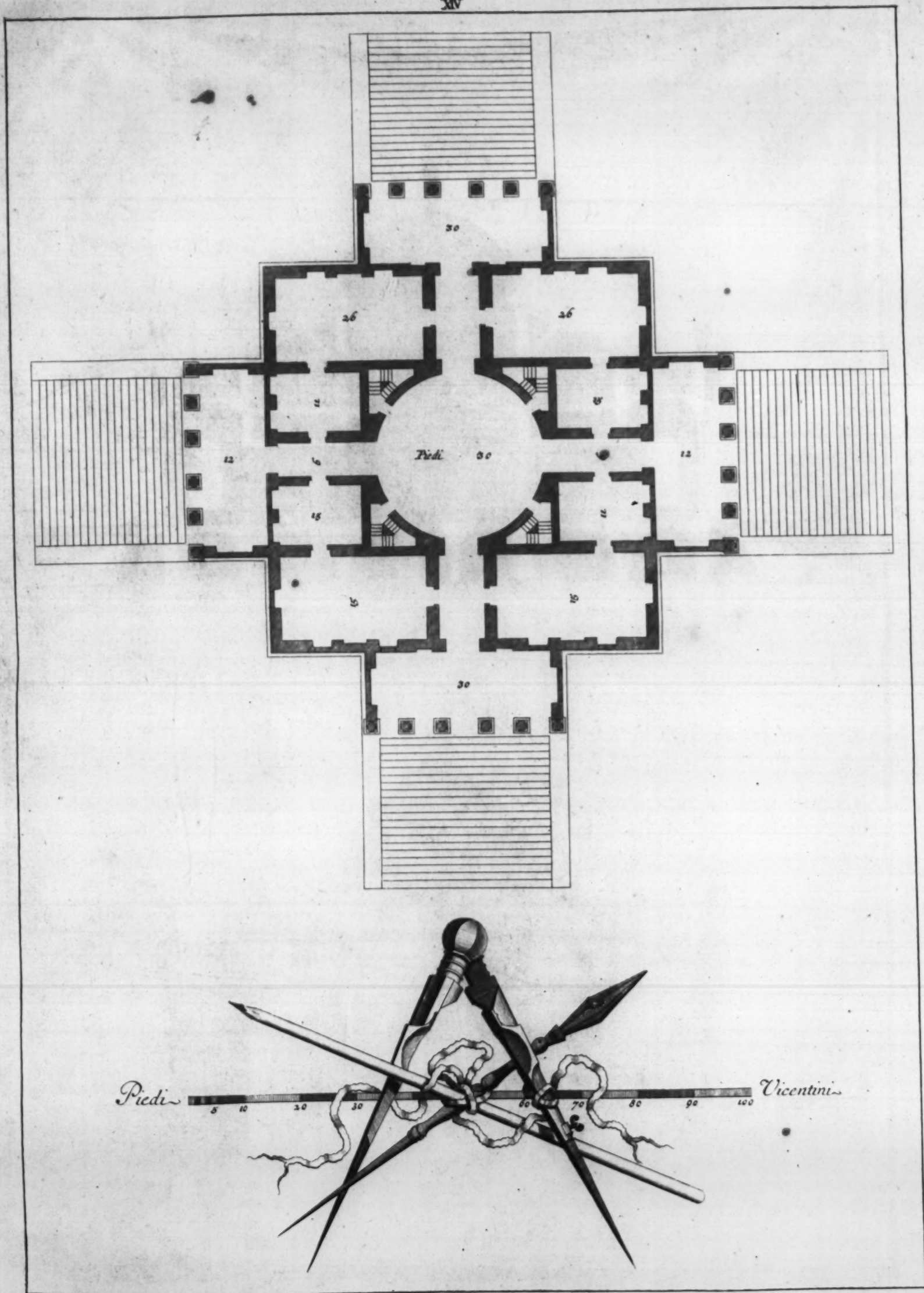




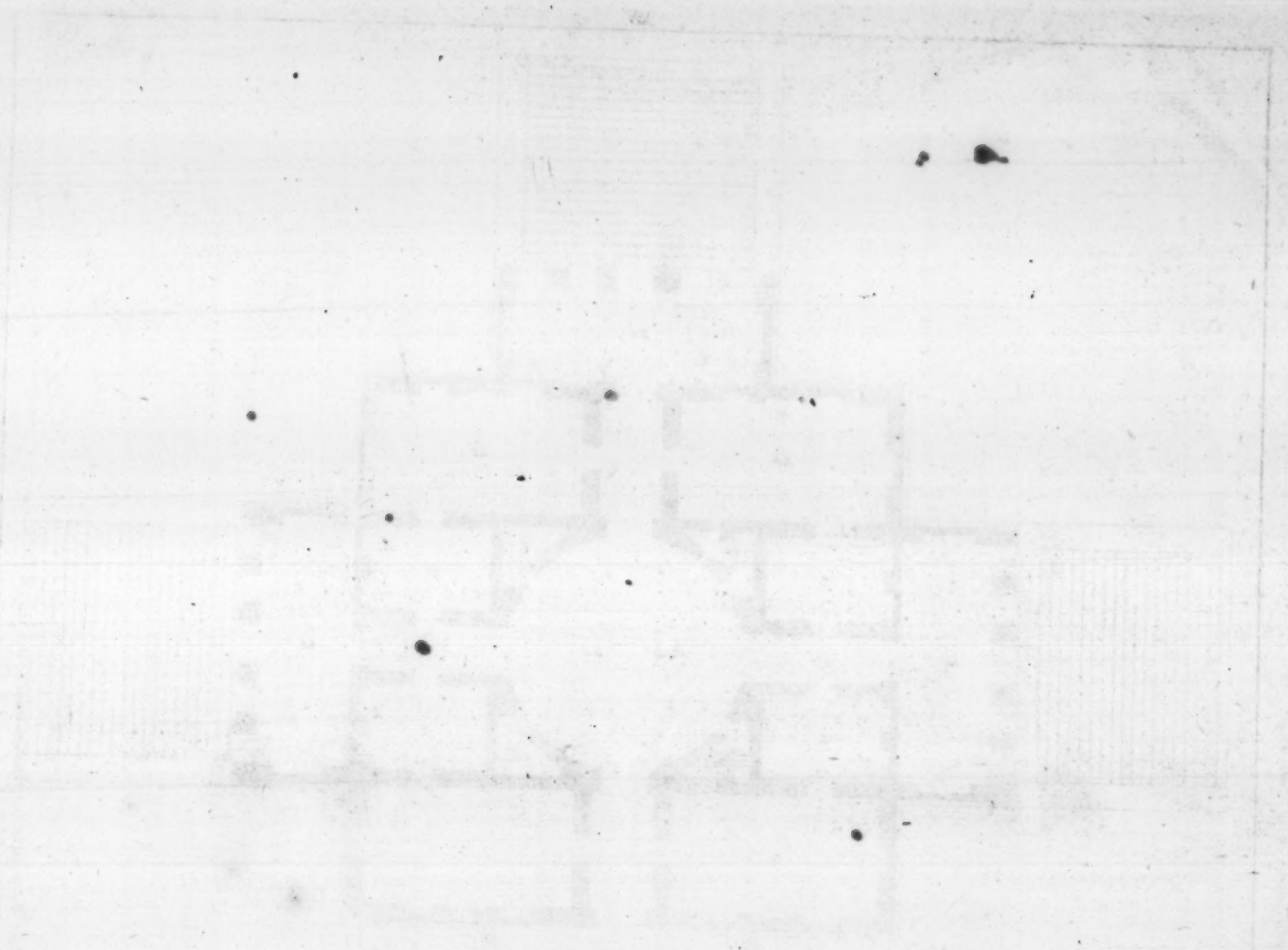




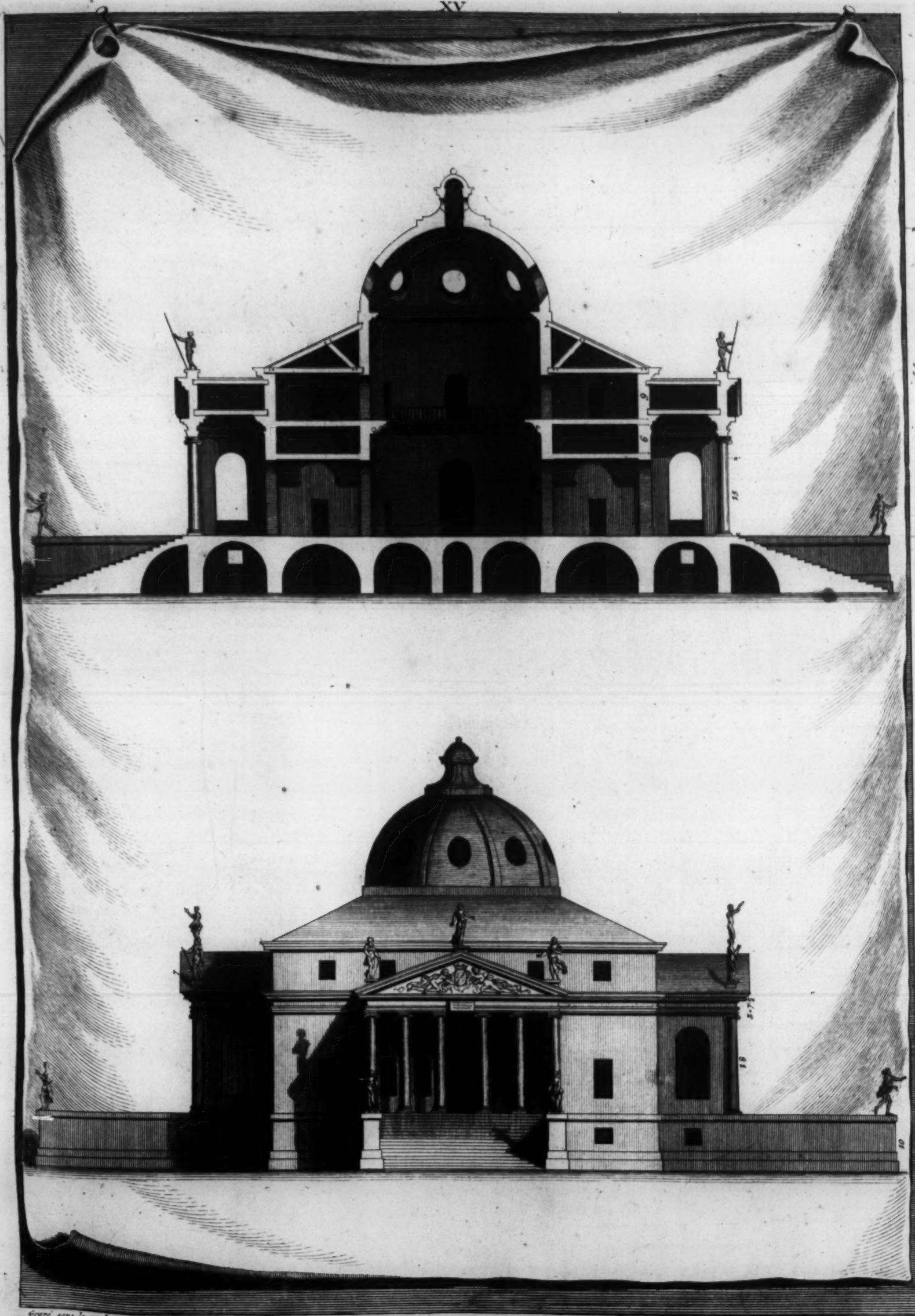






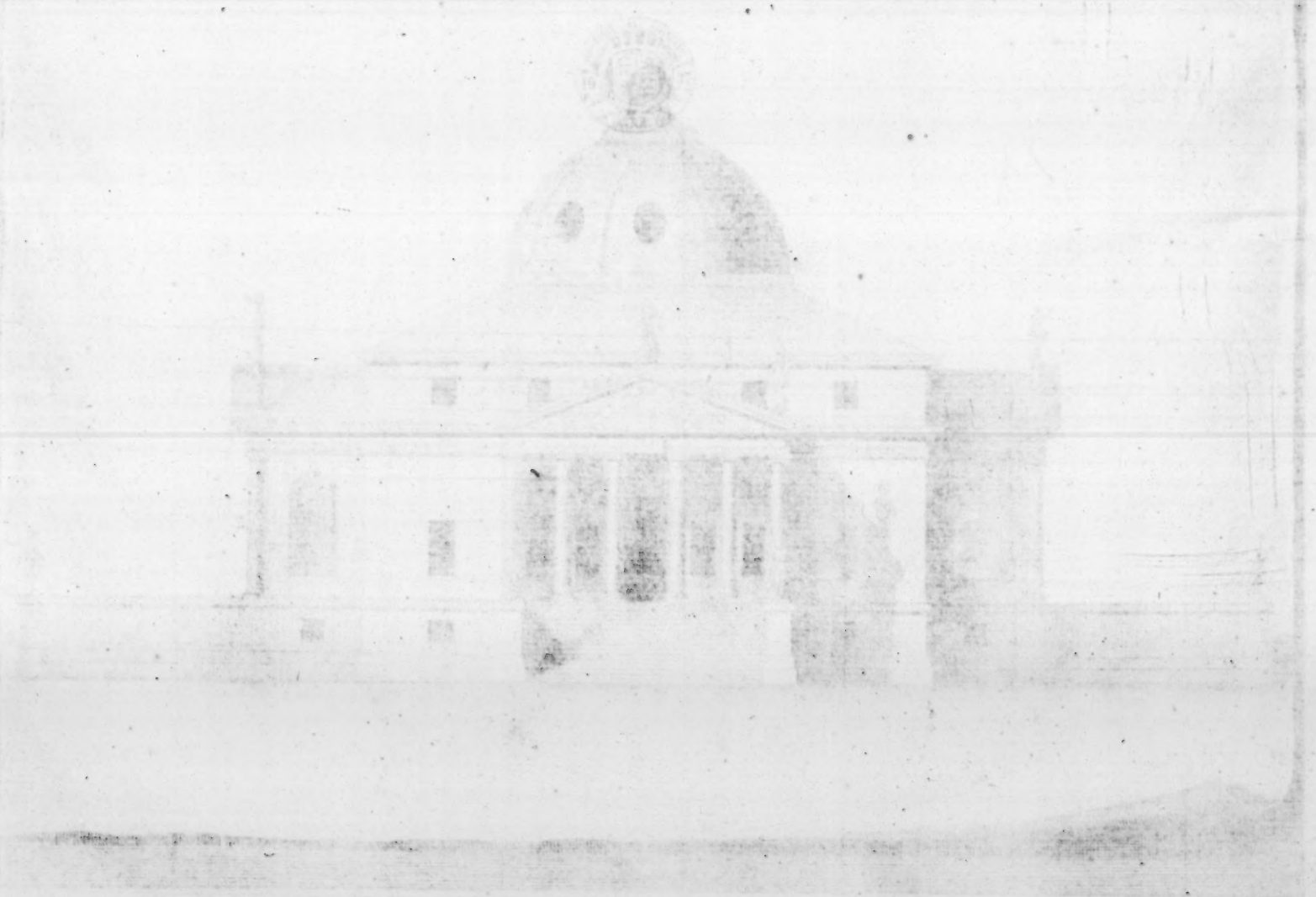
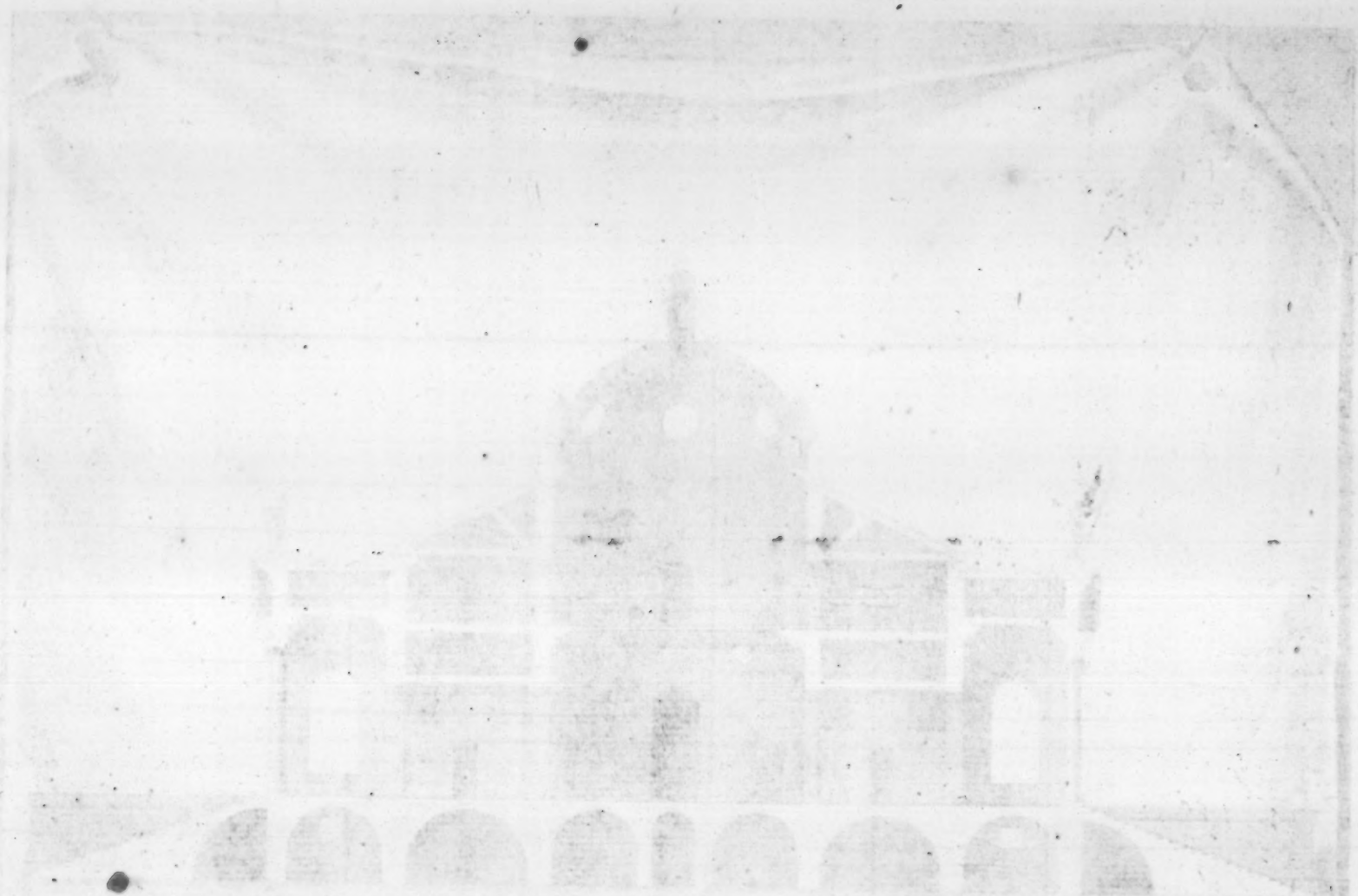




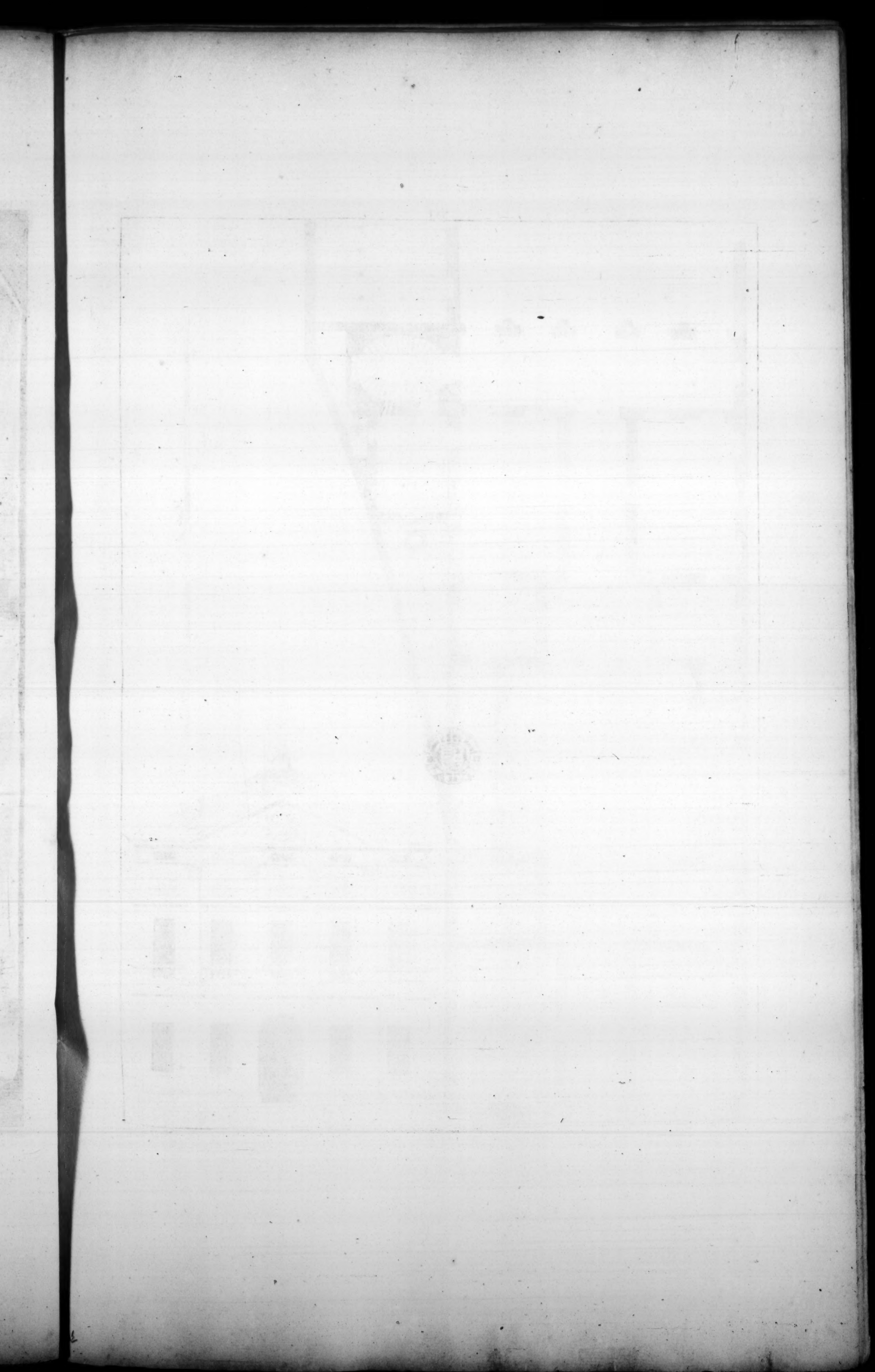


Œuvre sous la conduite de B. Poiré en 1715.

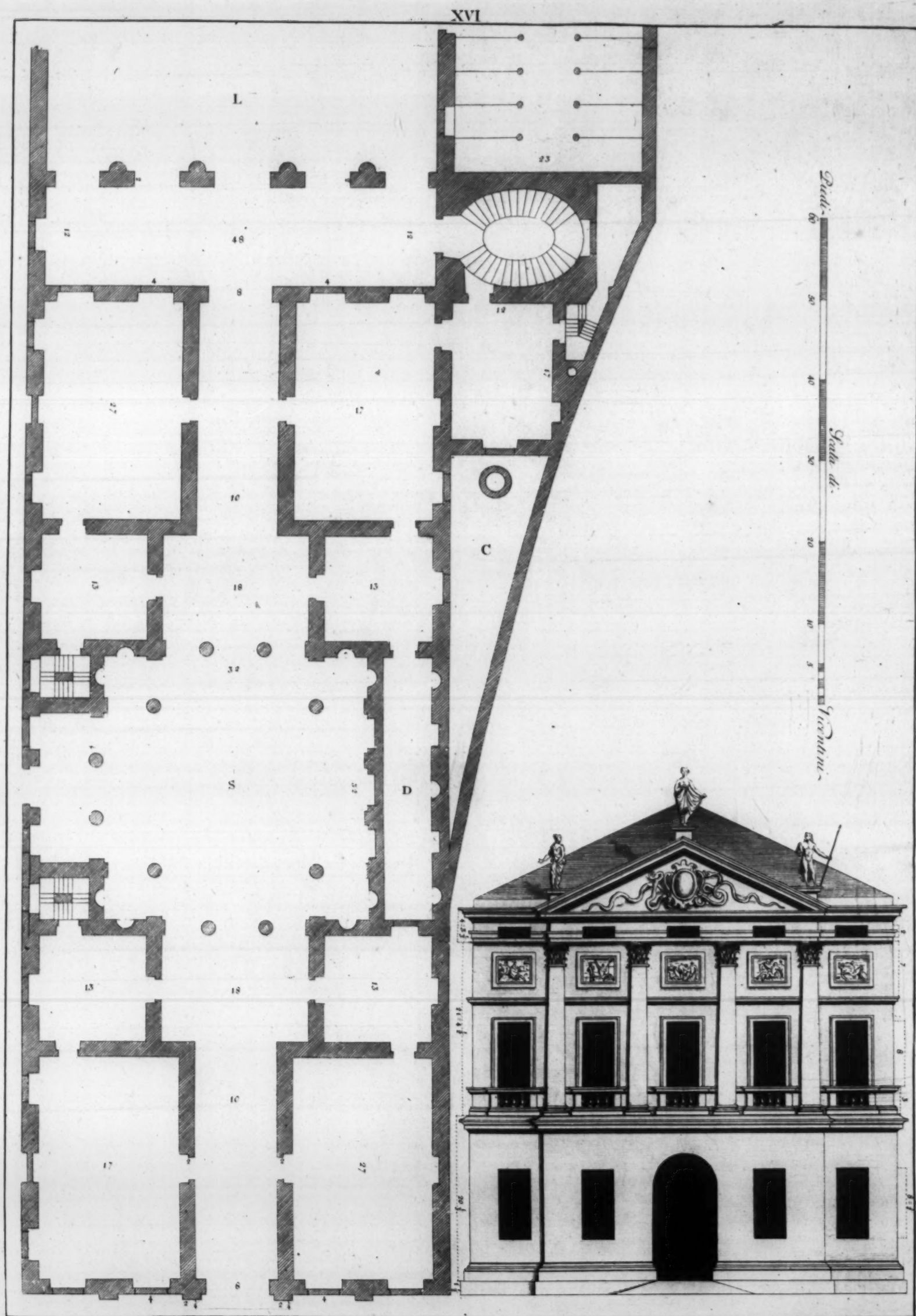




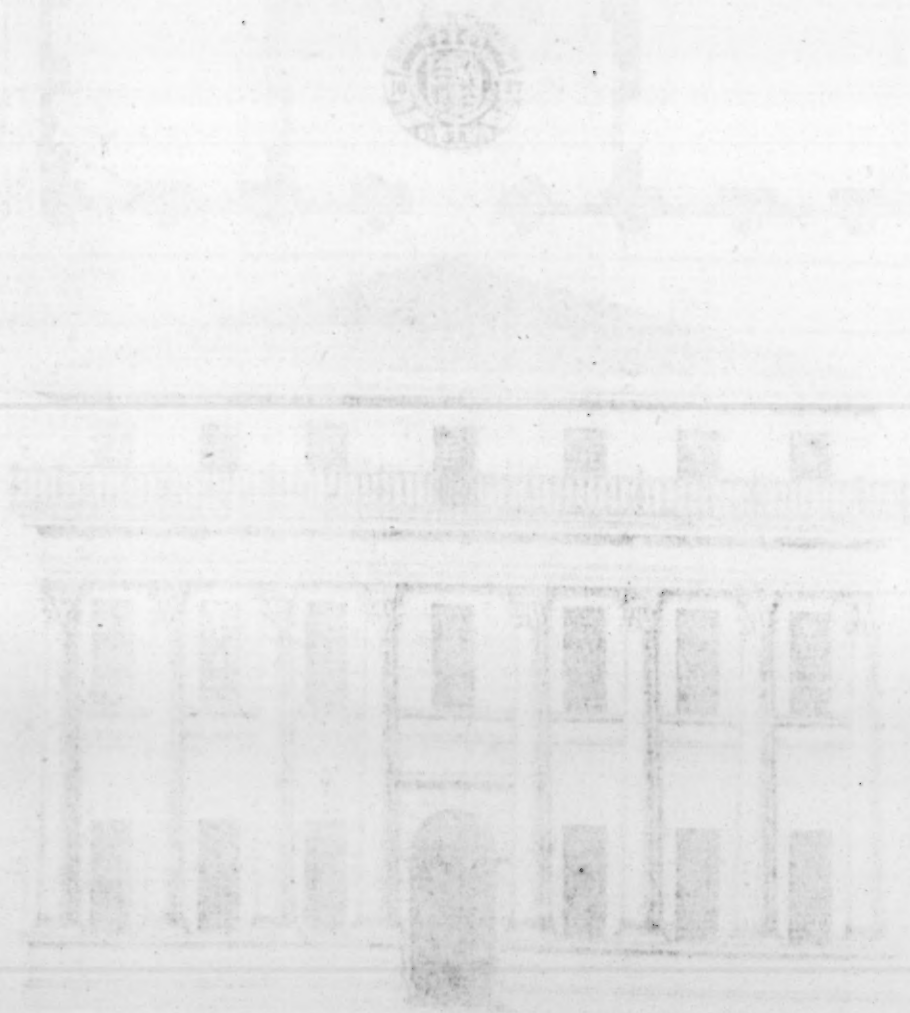




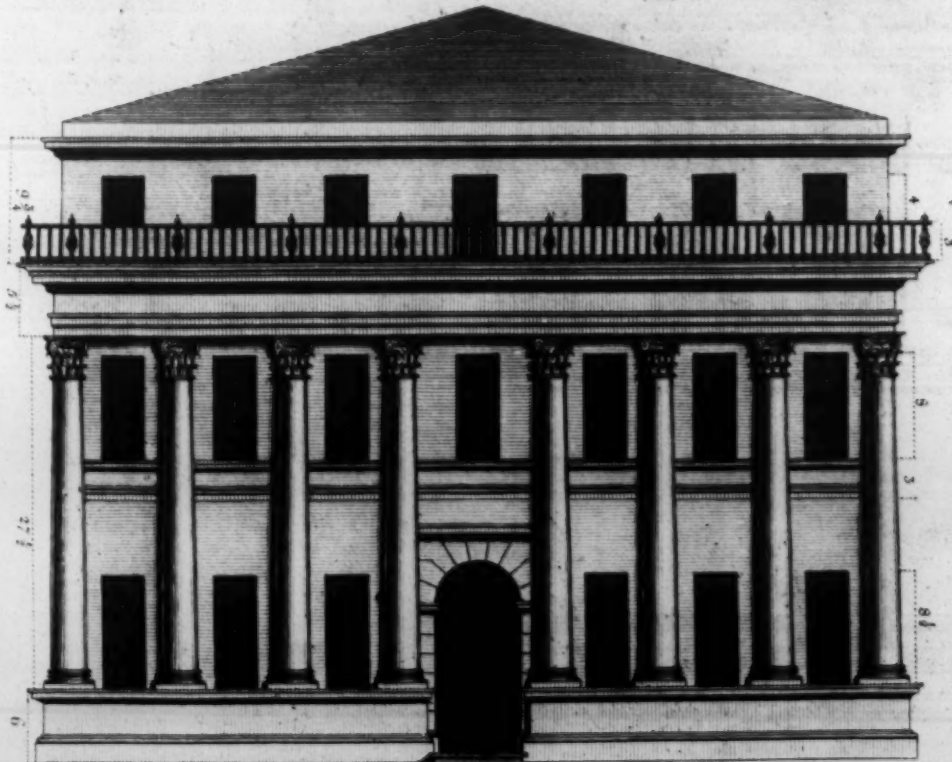
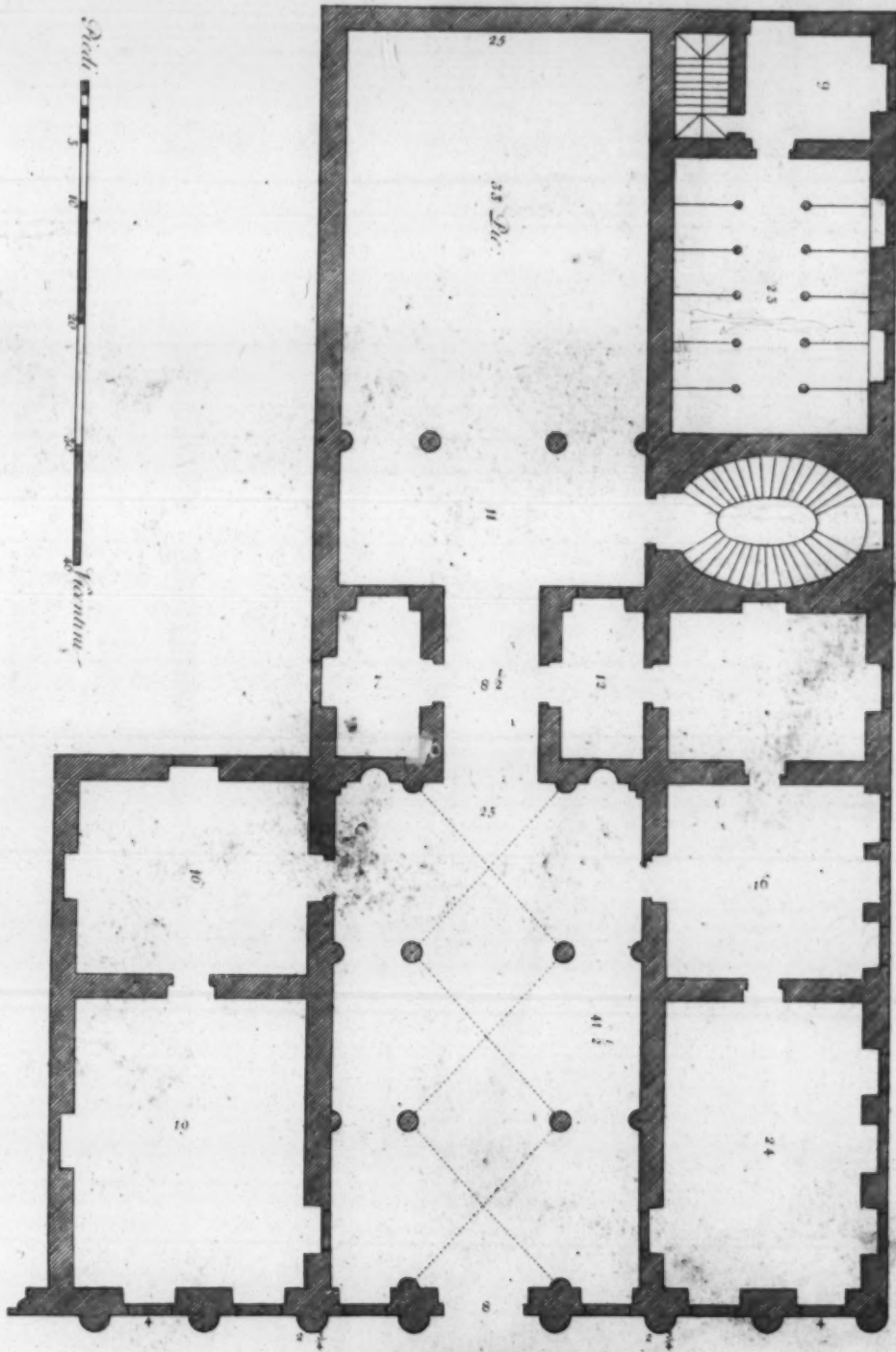




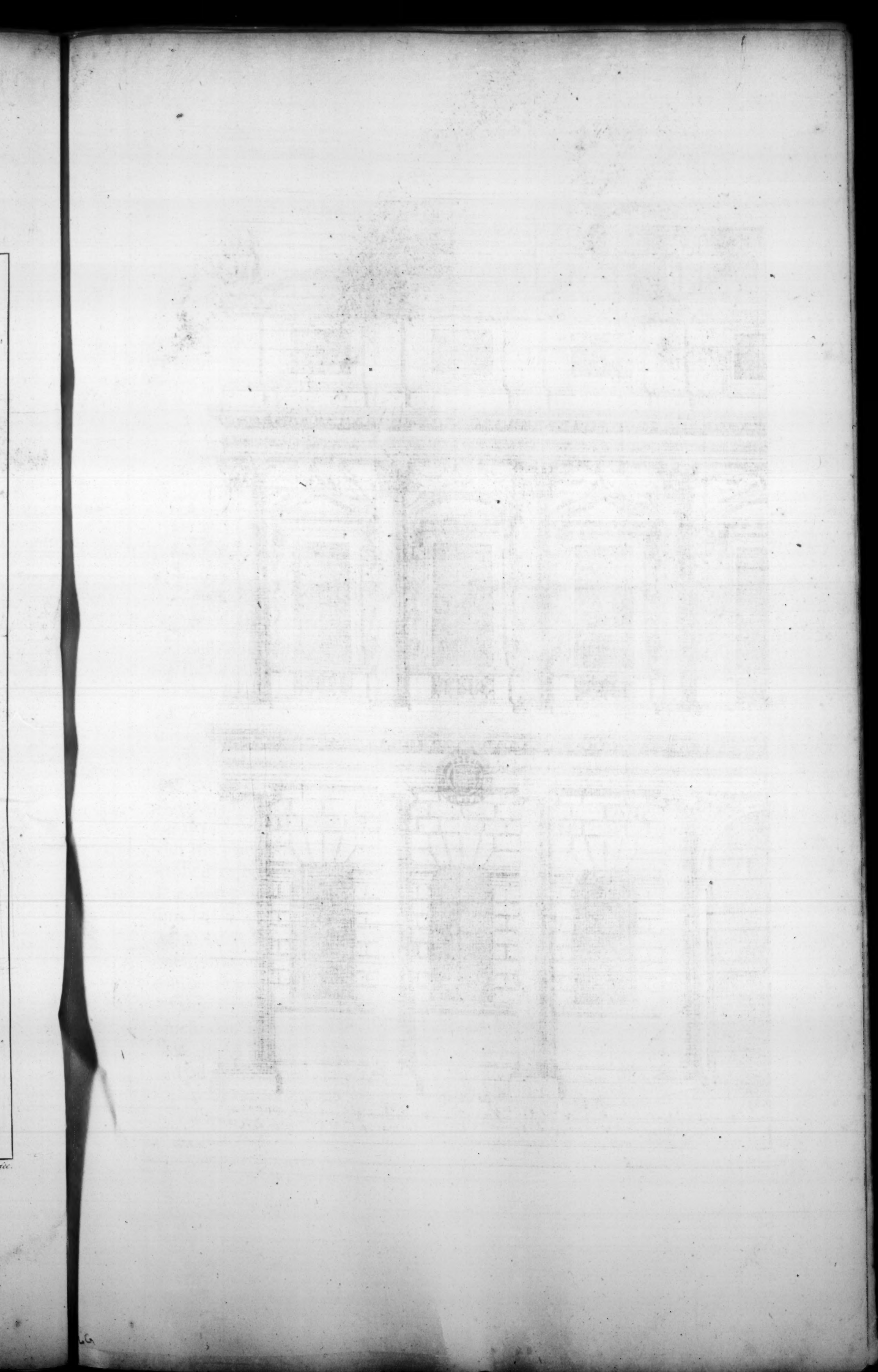




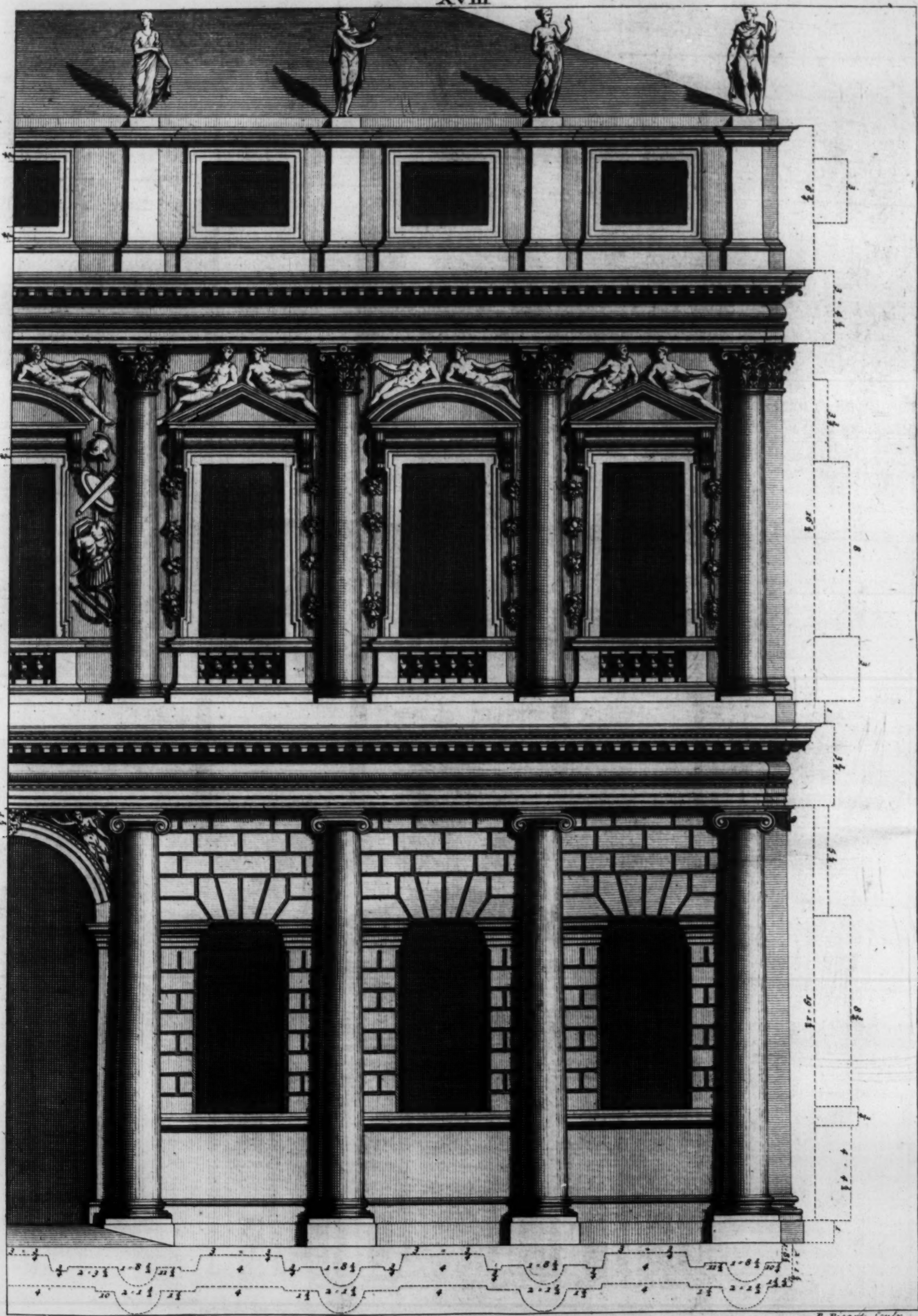














ing the Hall (the Arches of which are after our first method) there is a Plat-form to walk on 15½ Foot broad. On the Pedestals, which support the steps of the four Portico's, are Statues made by Mr. *Lorenzo Vicentino*, an excellent Sculptor.

Signor *Guioglio Capra*, a worthy Gentleman of the same Town, for the honour of his Country rather than for his own conveniency, has made all the preparations necessary, and even begun to build the following design\*, which is advantagiously situated, in the principal Street of the Town. This Building is to have Courts, Galleries, Halls, and Chambers of all sorts, some being large, some little, and others of a middle size. The form of it is beautiful and diversify'd, so that it will be magnificent and noble, suitable to the dignity and generosity of its Master.

C. *A little open Court.*

D. *Another little Court.*

L. *The great Court.*

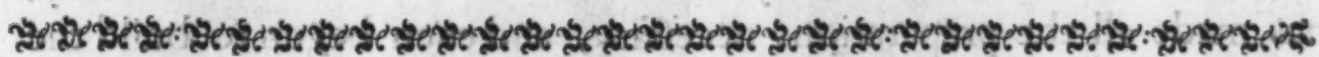
S. *A Hall which is supported with Columns underneath, but having none above, makes it appear much lighter.*

Count *Montano Barbarano*, having a place to build on in *Vicenza*, desir'd me to give him the following design †, which not suiting the place at first, I was oblig'd to make some alterations in it; but that Gentleman having since bought the ground that was wanting, the first design has been entirely executed. The Stables and Servants Rooms on the one side answer to the Womens Apartment, to the Kitchen, and other convenient Offices on the other side, as may be seen in the draught. This Building is so far advanc'd, that they are raising the Fore-front, which is made according to the following design in great \*\*. I could not furnish the Printer soon enough with the plan of the last draught, according to which it was finally resolv'd to build it, and that the Foundations of it are already laid. The Entry has some Columns which support an Arch for the reasons before given. On each side there are two Chambers, which are a square and half in length, at the end of which are two square ones, and after them two Closets. Opposite to the entry is a passage that leads to a Portico towards the Court. On each side of this same passage is a Closet with a *Mezzanino* above it, to which one goes by the principal Stair-case. All the Arches of these places are twenty one Foot and a half high. The Hall above, and all the other Rooms are ceil'd, except the Closets, which are

\* Plate XVI. † Plate XVII. \*\* Plate XVIII.




arch'd as high as the Cielings of the Rooms. The Columns of the fore-front have their Pedestals, and support a Corridor, to which one enters by the Soffit. The front is not to be after this first method, as I have said before, but as it is in the next design \* drawn upon a larger Scale.



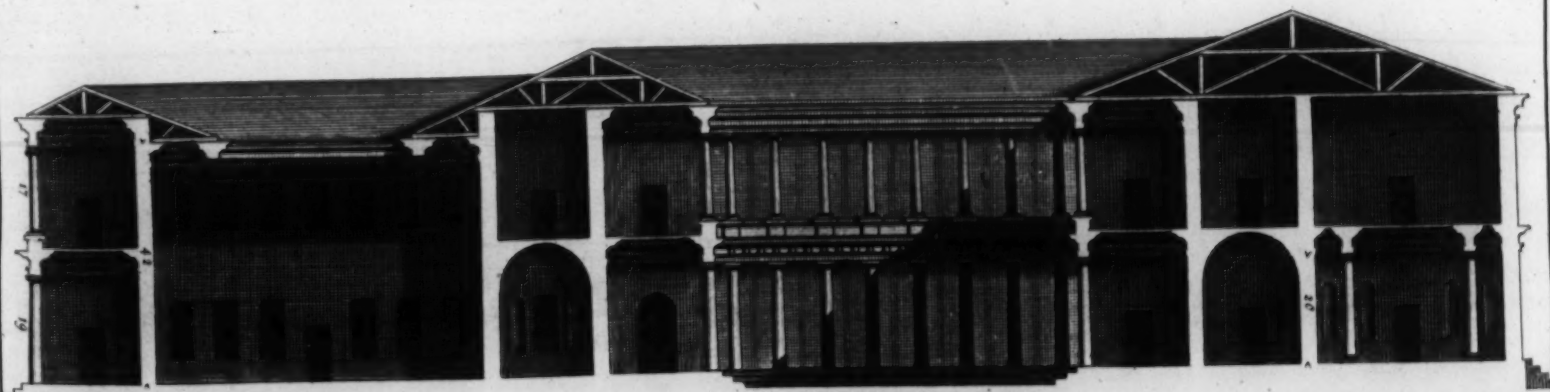
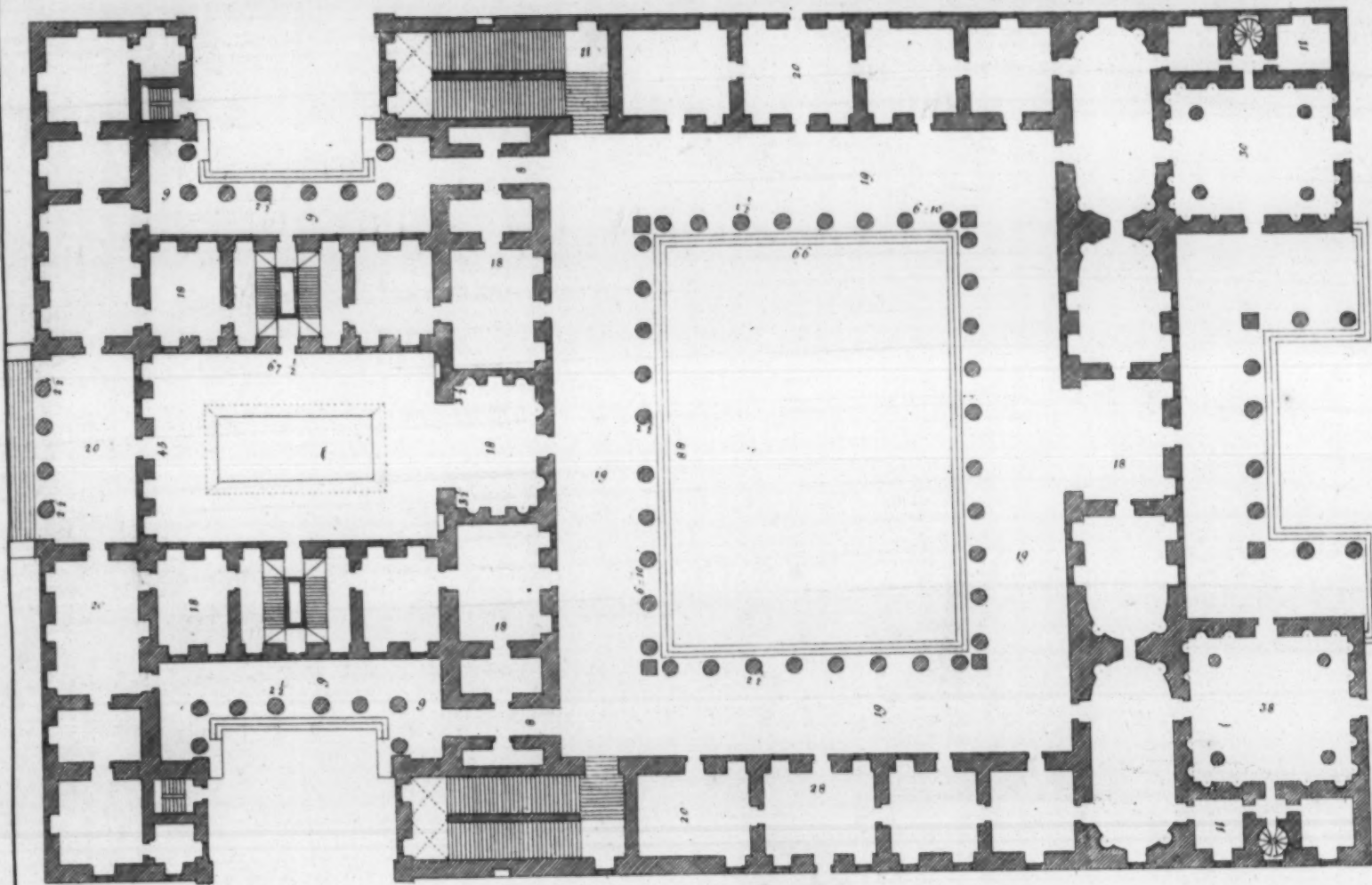
## CHAP. IV.

### *Of the Tuscan Atrium, or Hall.*

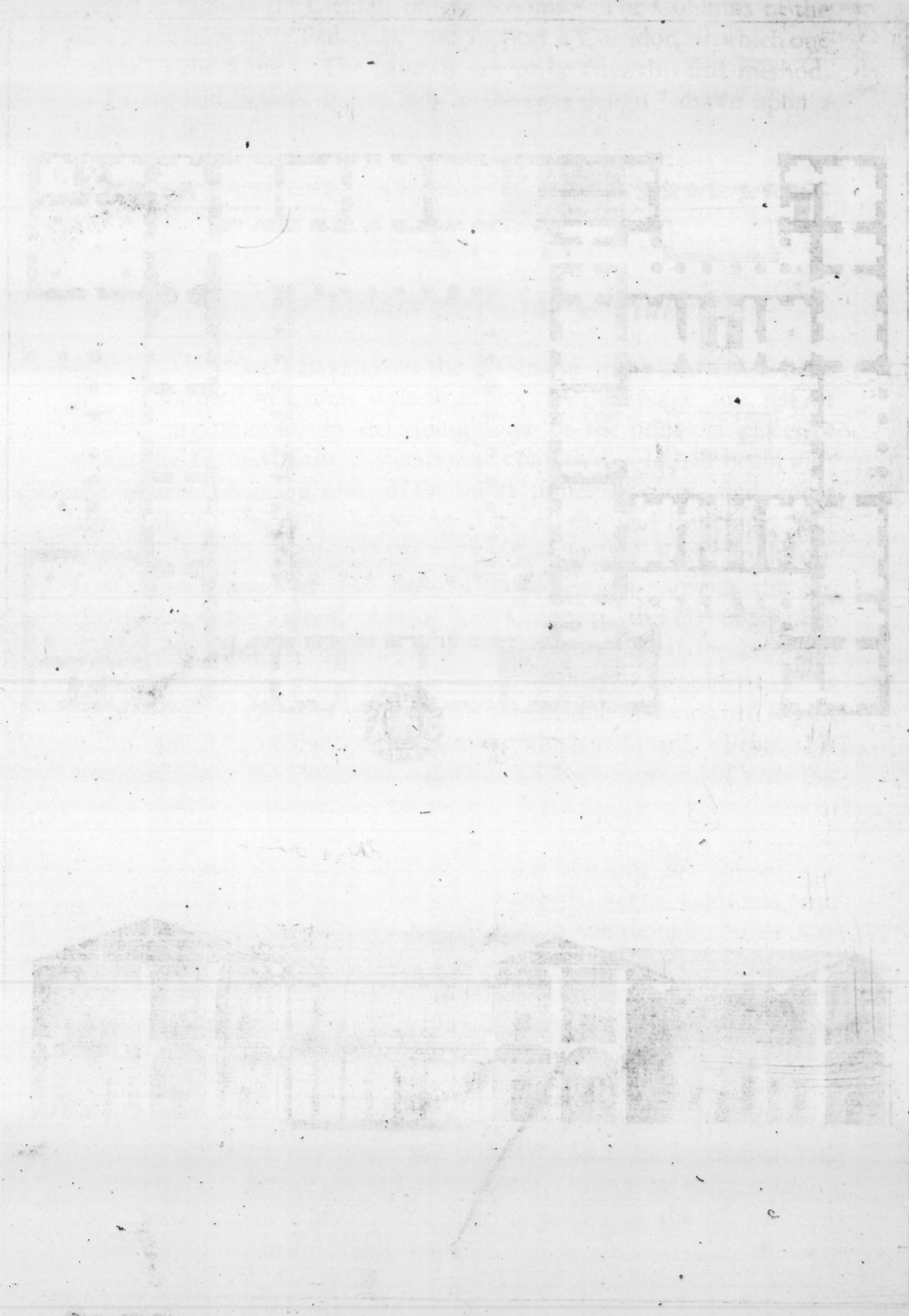
OW that I have given the designs of some Houses I have erected in Cities, I think it proper to discharge my self of my promise, in describing some of the principal places of which the Houses of the Antients were compos'd. I shall begin with the *Atrium*, as being one of the most principal parts, and come afterwards to the other adjoining parts of the said Buildings, and lastly to their common Halls. *Vitruvius* in his sixth Book observes that there were five sorts of these *Atria* among the antients, viz. the *Tuscan*, that of four Columns, the *Corinthian*, the *Testudinated*, and the open one, of which I intend not to speak. The following designs † are for the *Tuscan Atrium*. The breadth of this is equal to the two thirds of its length. The breadth of the record Room is but two fifths of that of the *Atrium*, which is square. From this one passes into the *Peristylos*, which is a Court surrounded with Pillars, a third longer than its breadth. The breadth of the Piazza or Portico (*that is, the space from the Wall to the Pillars*) is equal to the height of the Columns. Opposite to the wings of the *Atrium* one might contrive little Halls, having a prospect over the Gardens; and if they are made as they are represented in the draught, their Columns should be *Ionick* about twenty foot high, and then the Piazza's would be as broad as the distance between each Column. Above there should be some other Columns of the *Corinthian* Order, a fourth part less than those below, between whom there should be Windows to give light, in imitation of the *Corinthian* Halls, as one may see hereafter, Plate XXX. The opening above should be without any cover at all, and ought to be surrounded with a Balustrade. If the ground will allow it, one may make more or less Lodging than I have here drawn, according as the use and convenience of the master shall require.

\* Plate XVIII. † Plate XIX.





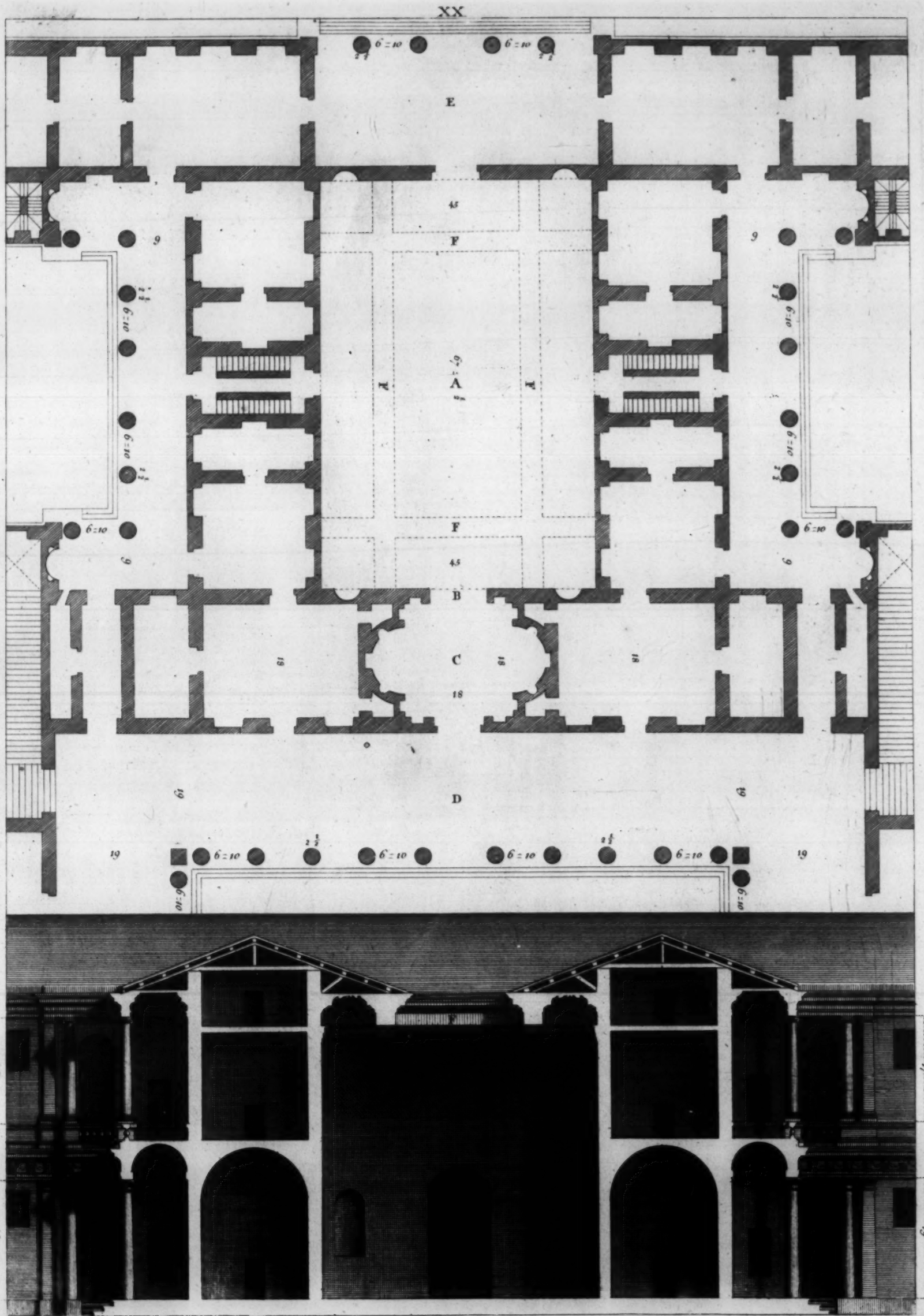




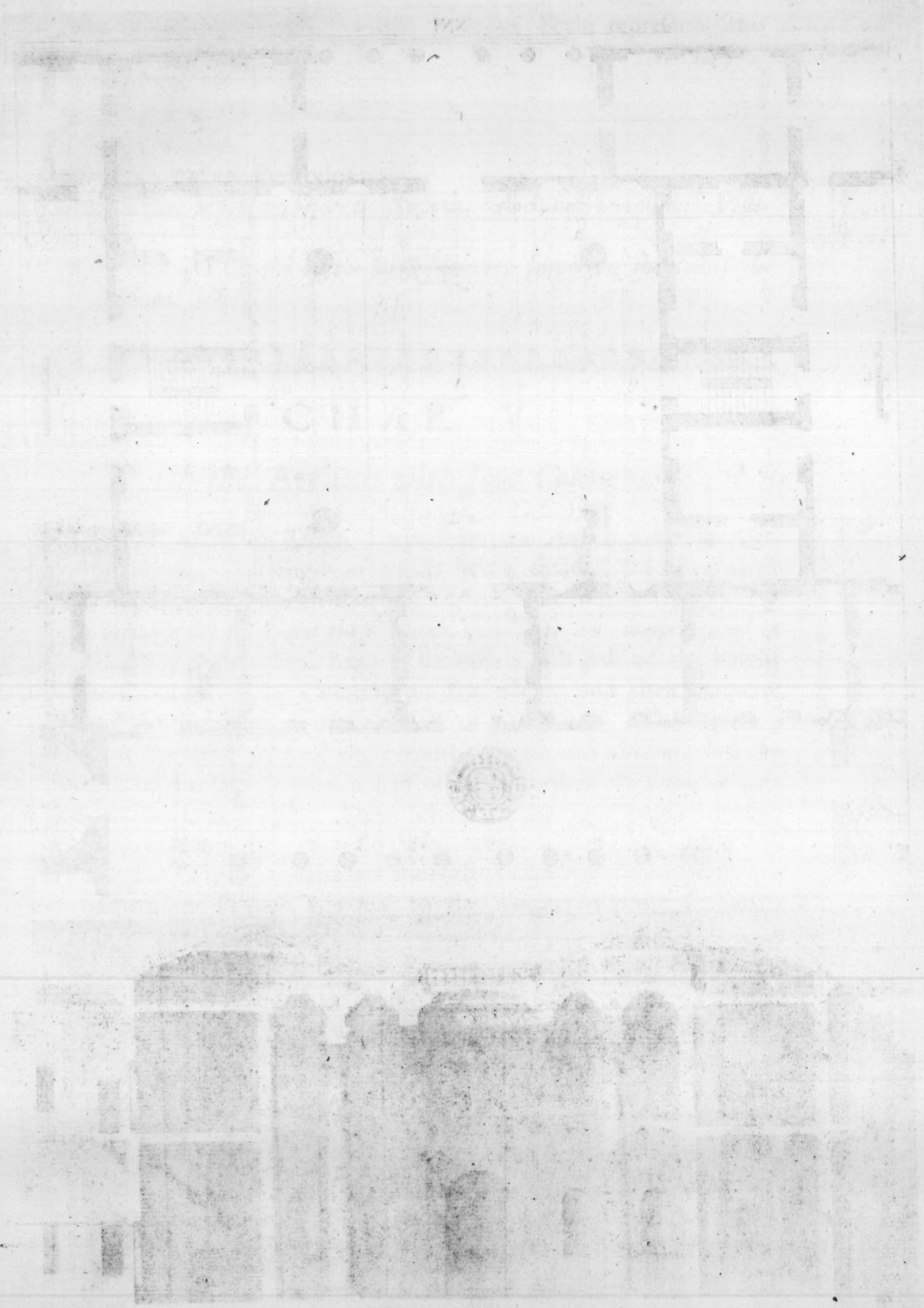






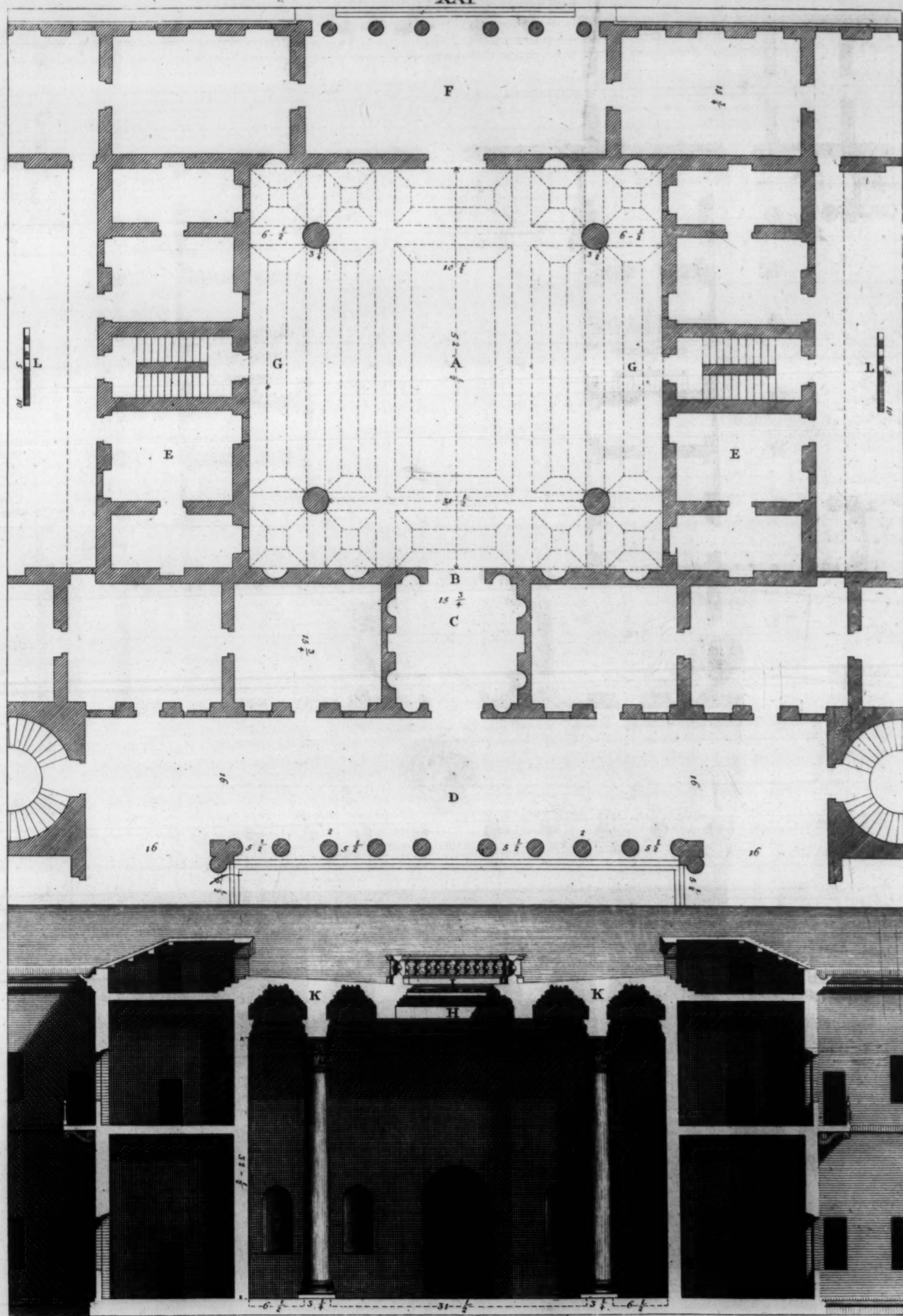






22







The following draught \* upon a larger Scale represents this *Atrium*.

- A. *Atrium*.
- B. *Door to the Record-room*.
- C. *Record-room*.
- D. *Portico of the Peristylus*.
- E. *Portico, or Gallery before the Atrium, which may be called the Vestibule*.
- F. *Freeze and Cornice on the Breast-summit, supporting the top of the Atrium*.



## C H A P. V.

### *Of the Atrium with four Columns.*

**T**HE following design † represents the *Atrium* with four Columns; the length of which being divided into five equal parts, the breadth takes up three. The Wings (*that is, the space between the Wall and the Columns, which is not comprehended in the breadth of the Atrium*) have in breadth a fifth part of the height of the Columns. The Columns are *Corinthian*, and their diameter is equal to the breadth of one half of the Wings. The opening above is the third part of the breadth of the said *Atrium*, and the breadth of the *Charter-room* is half of the breadth of the same *Atrium*, and has the same length. From which *Atrium* one passes through the *Charter-room* into the *Peristylus*, which is a square and a half in length. The Columns of the first order are *Dorick*, and the breadth of the Portico is equal to the height of those Columns. Those of the second order are *Ionick*, and a fourth part less than the first, under which there is a Pedestal, two Foot and three quarters high.

- |  |  |
|--|--|
| A. <i>Atrium</i> .   | G. <i>Wings of the Atrium</i> .  |
| B. <i>Door to the Charter-room</i> .                         | H. <i>Freeze under the Cornice of the Atrium</i> .                       |
| C. <i>Charter-room</i> .                                     | I. <i>Opening on the top of the Atrium, with a Balustrade round it</i> . |
| D. <i>Portico of the Peristylus</i> .                        | K. <i>Solid above the Columns</i> .                                      |
| E. <i>Chambers near the Atrium</i> .                         | L. <i>Scale of ten Foot</i> .  |
| F. <i>Portico through which one enters into the Atrium</i> . |  |


\* Plate XX.

† Plate XXI.



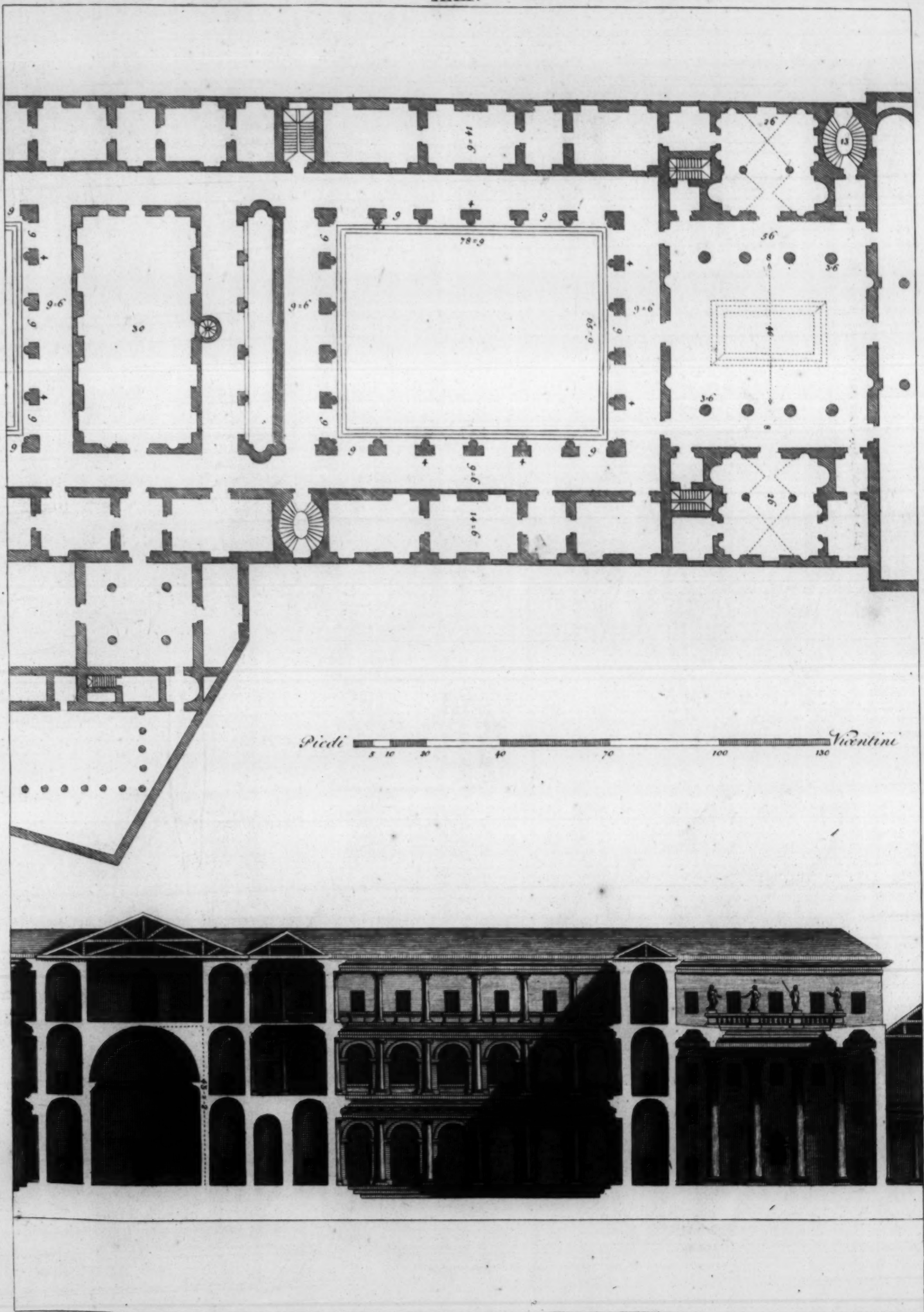
## C H A P. VI.

*Of an Atrium made after the Corinthian manner.*

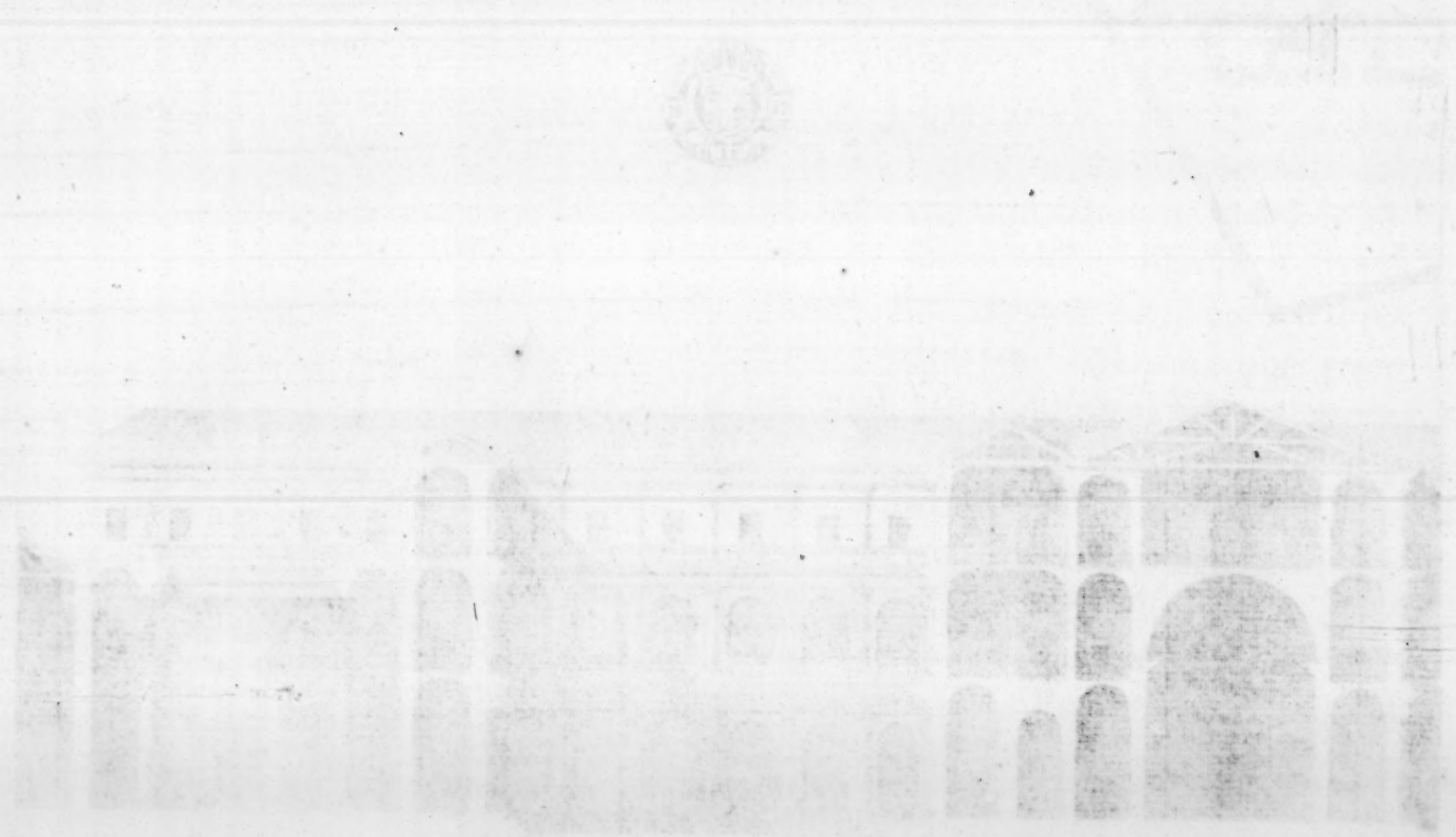
HE Edifice which I am going to describe \* is at *Venice* in the Convent nam'd the *Charity*, belonging to the regular Canons. I have endeavour'd to make this House resemble those of the Antients, and in order thereto, I have built a *Corinthian Atrium* in it, the length of which is the diagonal of its square. The wings (*that is, the spaces between the Wall and the Columns*) have in breadth two sevenths of the length of the *Atrium*, that is, one for each Wing. The Columns are *Composite*, and are three Foot and a half in diameter, and 35 Foot high. The aperture in the middle is one third of the breadth of the *Atrium*, taken between the Columns. Above the *Atrium* there is a *Terrass* level to the third order of the *Cloister*, where the Cells of the Canons are. The *Vestry* is on one side, near the *Atrium*, round about which there is a *Dorick* Cornice which supports an arch'd cieling. The Columns that are there, bear up that side of the *Cloister's* Wall, which in the upper part divides the Chambers or Cells from the Galleries. The vestry stands in the place where the antients kept the Images of their Ancestors, and which they call'd the *Record-room*; tho to suit with the conveniency of the place, I have made the wings of the *Atrium* serve for that use, opposite to the *Vestry* in the *Chapter-hall* answerable to one another. On the side near the Church, there is an *Elliptical*, or oval *Stair-case*, open in the middle, which is very commodious and agreeable. From the *Atrium* one enters into the *Cloister*, where there are three Orders of columns one over the other. The first is *Dorick*, and its columns project more than one half from the Pilasters. The second is *Ionick*, and the columns are a fifth part less in height than the former. The third is *Corinthian*, and diminishes also a fifth in the height of the second. In this last range, instead of Pilasters, there is a contiguous Wall; and over the center of the Arches of the two first orders, are Windows which give light to the Entries of the Cells, the arch'd ceilings whereof are made of cane, to discharge the Walls. Opposite to the *Atrium* and the *Cloister*, beyond the *Stair-case*, is the *Refectory*, or large Dining-room, which is two squares in length, and rais'd to the third Story of the *Cloister*.

\* *Plate XXII.*





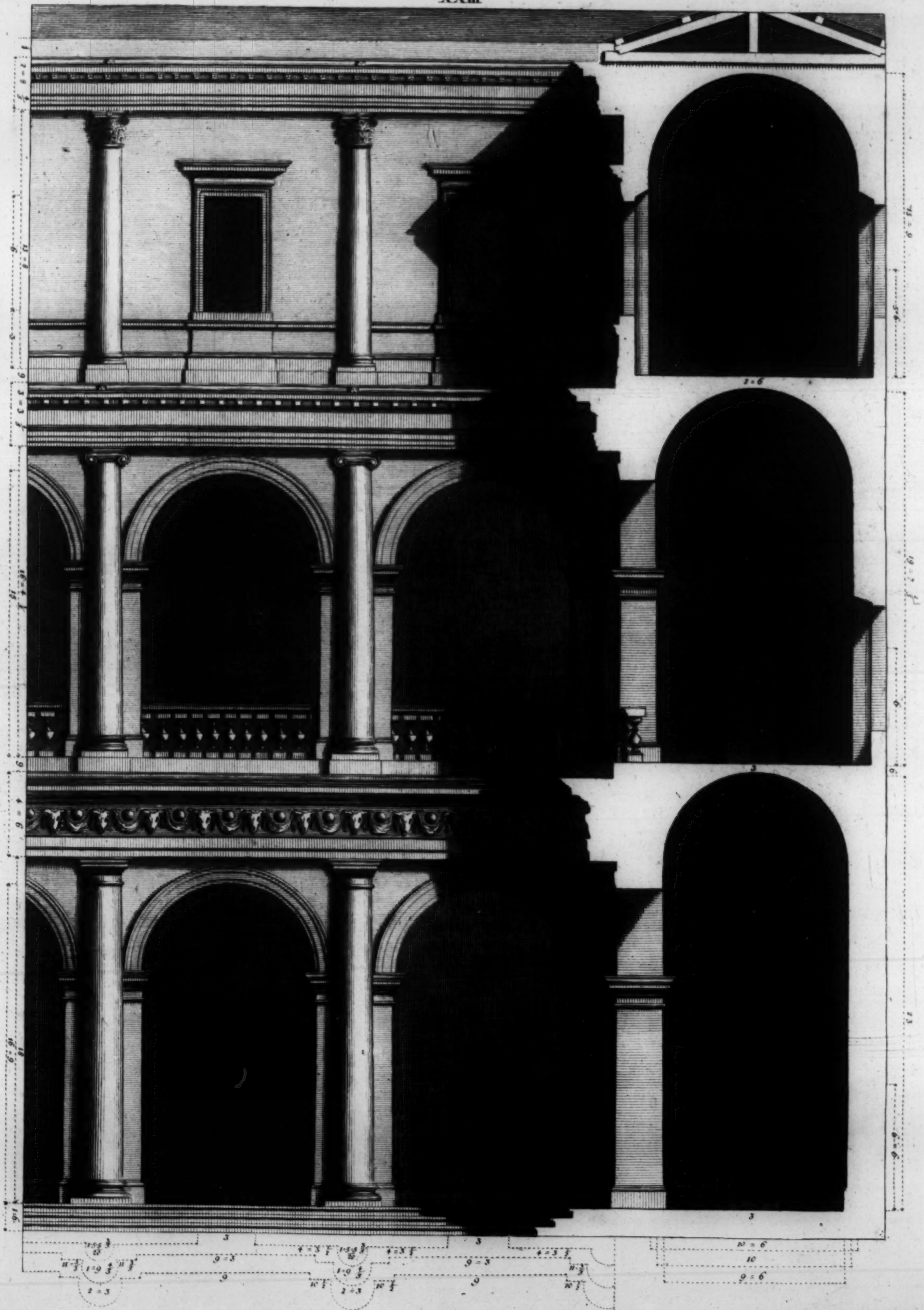




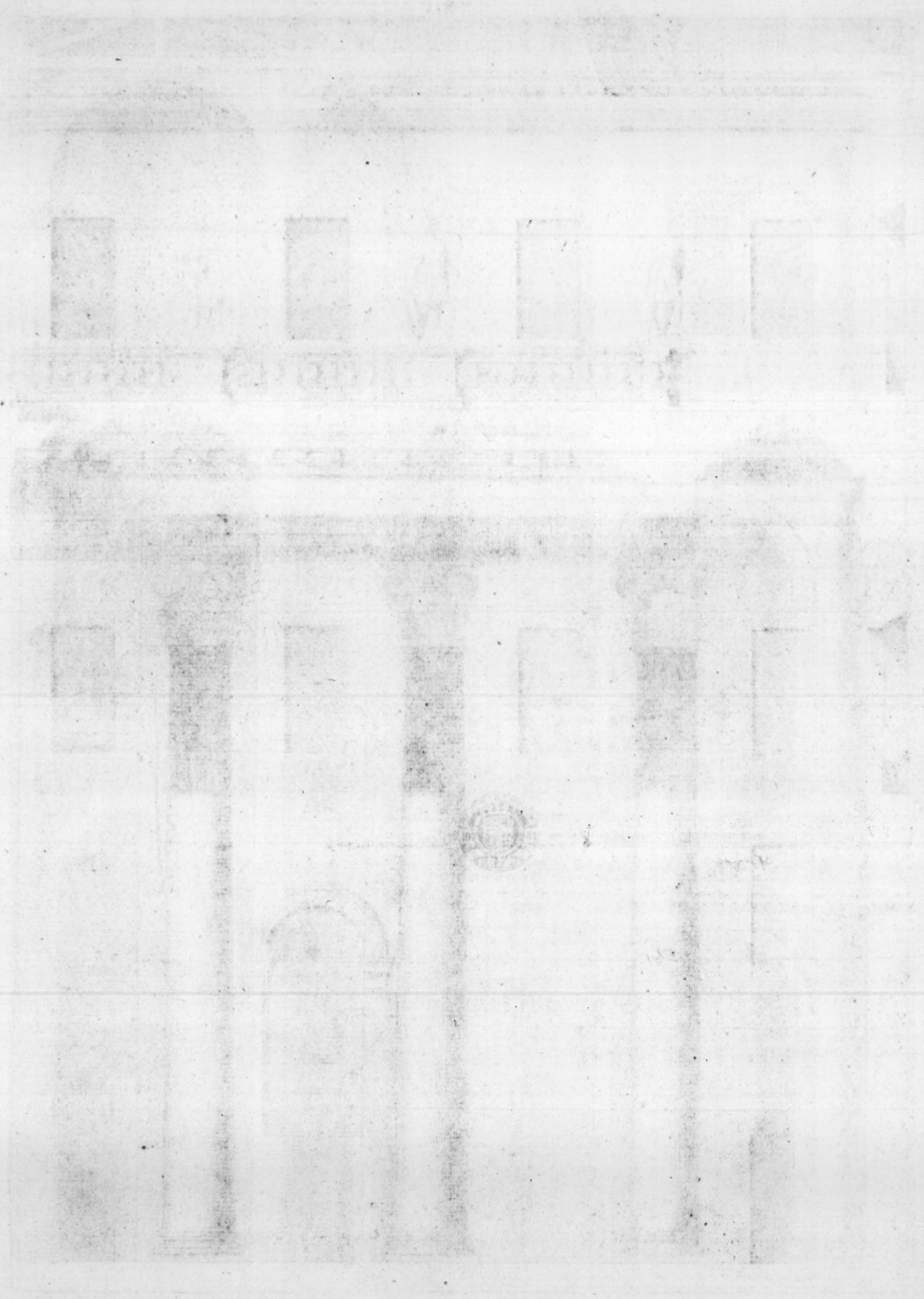








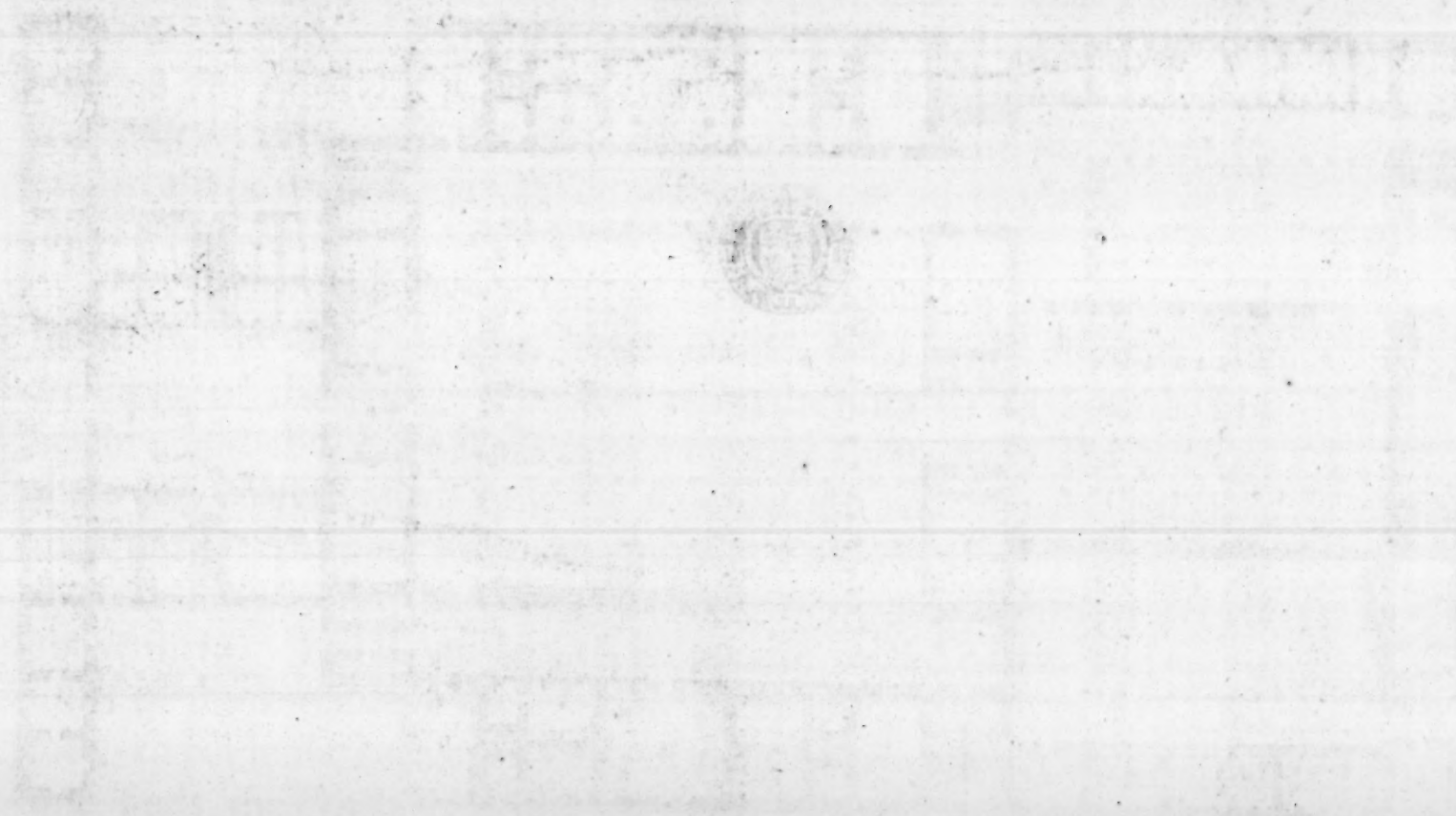




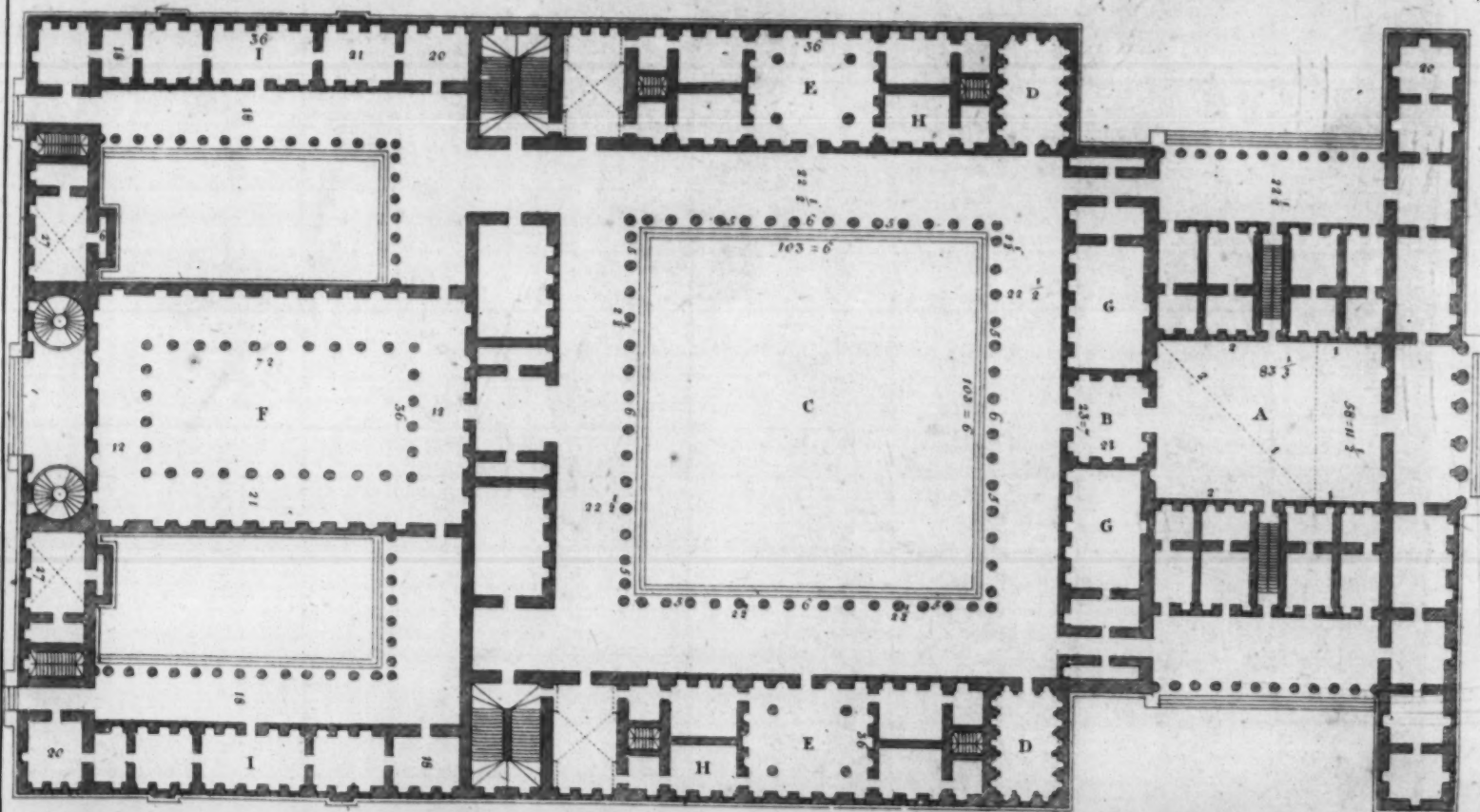
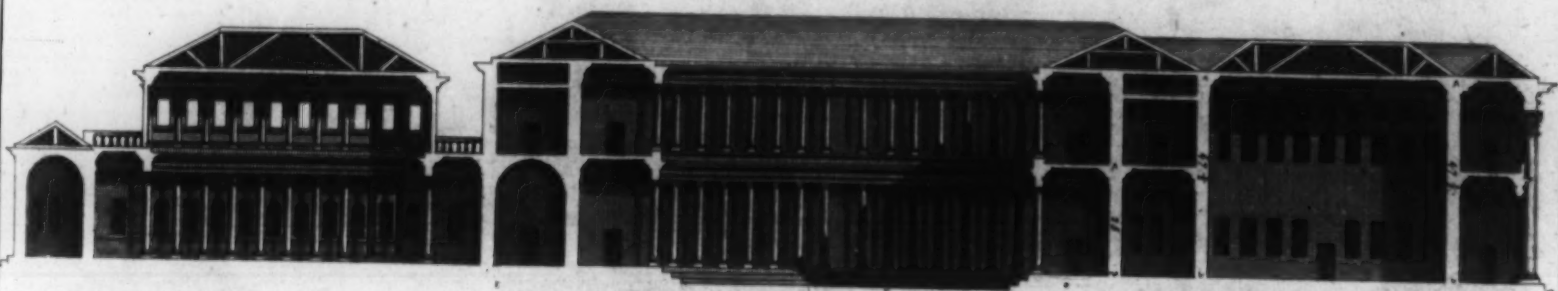








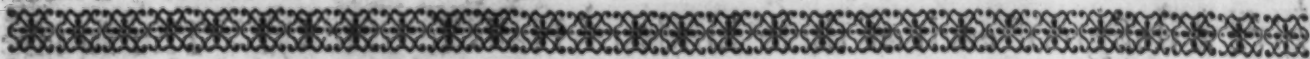






It has a Gallery on each side, and under it a Cellar made in the shape of a Cistern, that no Water may come into it. At one end are the Kitchen, the Ovens, the Poultry-yard, the Wood-house, the Landry, and a pretty fine Garden; at the other end are other Conveniencies. This Building has 44 Rooms and 46 Cells, including the apartments for Strangers, and other places for several uses.

The first \* of the following draughts is a part of the Atrium drawn at large, and the second † is a part of the Cloister.



## CHAP. VII.

### *Of the Testudinated Atrium, and the private Houses of the antient Romans.*

**B**ESIDES the various forms of *Atriums* we have spoken of before, there was one very much in use among the Antients, which they call'd *Testudinated* (that is, after the form of a *Tortoise*) and because what *Vitruvius* says of it is very obscure and difficult, and consequently requires a particular Observation; I shall therefore acquaint you with what I think upon that subject, adding also the disposition and situation of the *OEques*, or great Halls of the *Chanceries*, *Refectories*, Baths, and the like; so that the following Cut \*\* shall represent all the parts of a private House, every one in its place, according to *Vitruvius*.

The length of the *Atrium* is equal to the diagonal of its square, and has its full breadth in height, which reaches as far as the summer, or architrave of the Roof. The Rooms on the sides are six Foot less in height; and above the Walls which separate them from the *Atrium*, there are Pilasters which bear the Roof of the said *Atrium*: between these pilasters there are some Apertures or Windows which give light to the said *Atrium*; for the Chambers have an open platform or terrass above them. The Record-room is opposite to the entry, and is two fifths of the breadth of the *Atrium*. This place serv'd, as I said before, to put in the Images or Titles of their Ancestors. A little further one finds the *Peristylus*, about which are Piazzas as broad as is the height of the columns. The Chambers are of the same breadth, and their height, to the impost of the Arches, is equal to their breadth; as the Arches have in height the third part of their diameter. *Vitruvius* has describ'd several sorts of *OEques*, which

\* Plate XXIII. † Plate XXIV. \*\* Plate XXV.

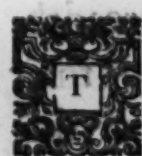


wherein also the Women did their work. Some of these were called *Tetrazyli*, because they had in them four Pillars. Others were called *Corinthian*, which were surrounded with semy-columns. The *Egyptian* ones had, over and above the first row of columns, a Wall, which inclos'd them with half-columns plac'd directly above the lower ones, and a fourth part less. Between these Pillars were the Windows that gave light to the Hall. The height of the Galleries that surrounded it, did not exceed the columns of the first order; and above all there was a plat-form with a corridor, and an elbow-rail round the whole. I shall give a design of each of these kinds of Halls separately. The square Halls were to take the cool in during the Summer, and had commonly the prospect of Gardens or other Verdures. They had also another kind of Halls that were called *Cizicenes*, and which were also design'd for the abovesaid uses. The Chanceries and Libraries were generally on the East side, as also the *Triclinia*, or Eating-rooms. There were likewise Bagnios for Men and Women, which I have represented in the further part of the House.

- |                                       |                               |
|---------------------------------------|-------------------------------|
| A. Atrium.                            | E. A Hall with four columns.  |
| B. Record-room.                       | F. A Basilica.                |
| C. Peristylos.                        | G. Apartments for the Summer. |
| D. Halls after the Corinthian manner. | H. Chambers.                  |
|                                       | I. Libraries.                 |
- The following design \* is for the same Atrium, from a larger Scale.
- |                                  |   |
|----------------------------------|---|
| A. Atrium.                       | I. Chambers about the Atrium.                           |
| B. Record-room.                  | K. Summers making the Freeze of the Entablature within. |
| C. Piazza about the inner court. | L. Windows which give light to the Atrium.              |
| D. The inner court.              | M. The flat above the Walls of the Atrium.              |
| E. Door way to the Record-room.  |   |
| F. Part of the Corinthian Hall.  |   |
| G. Galleries, or Piazzas.        |   |
| H. Piazza before the Atrium.     |   |

## CHAP. VIII.

### *Of the Halls with four Columns.*

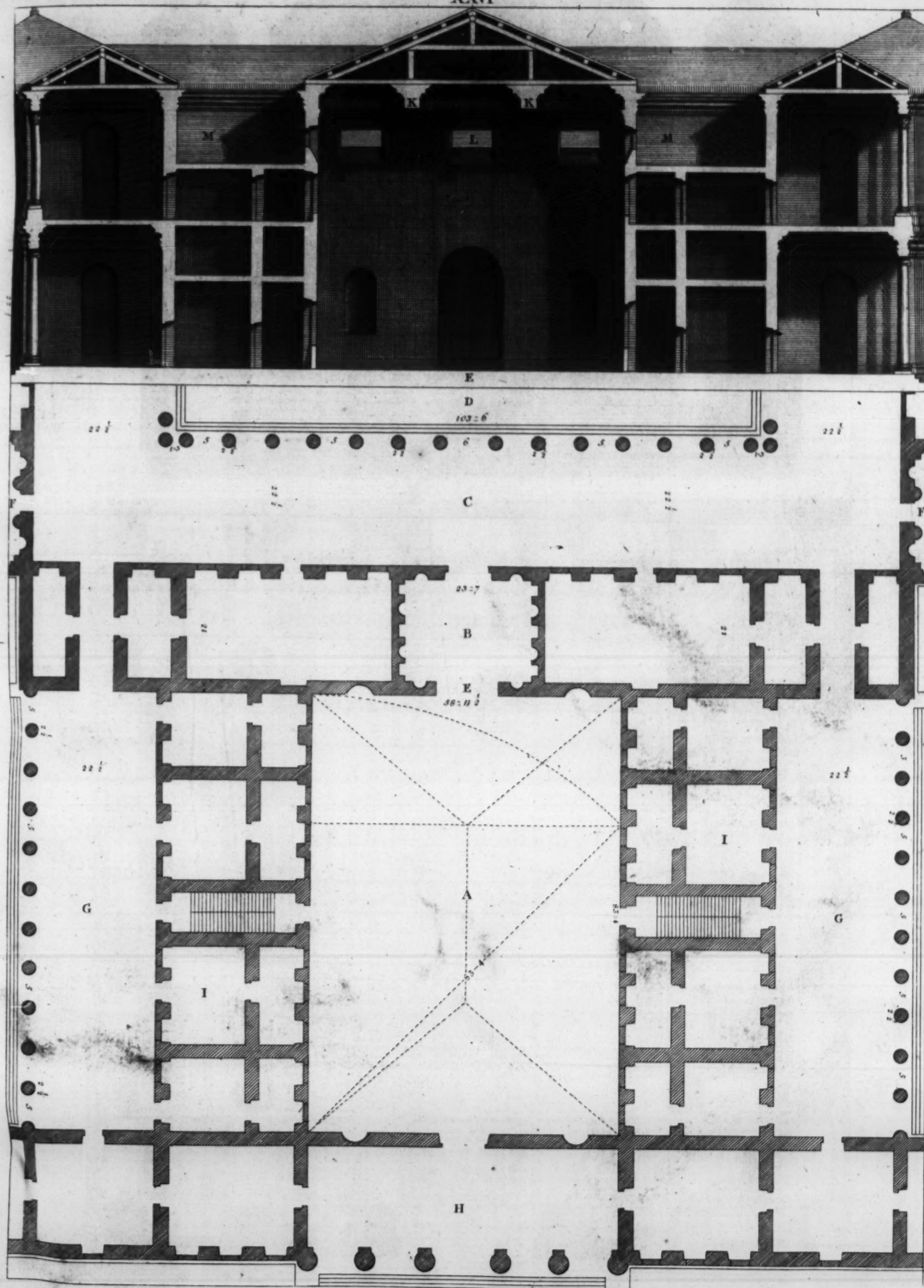


THE following design † is of that sort of Hall call'd *Tetrazylos*, because it had four columns. It was made square, and the columns serv'd not only to proportion the breadth to the height, but also to make the upper place still the firmer; which

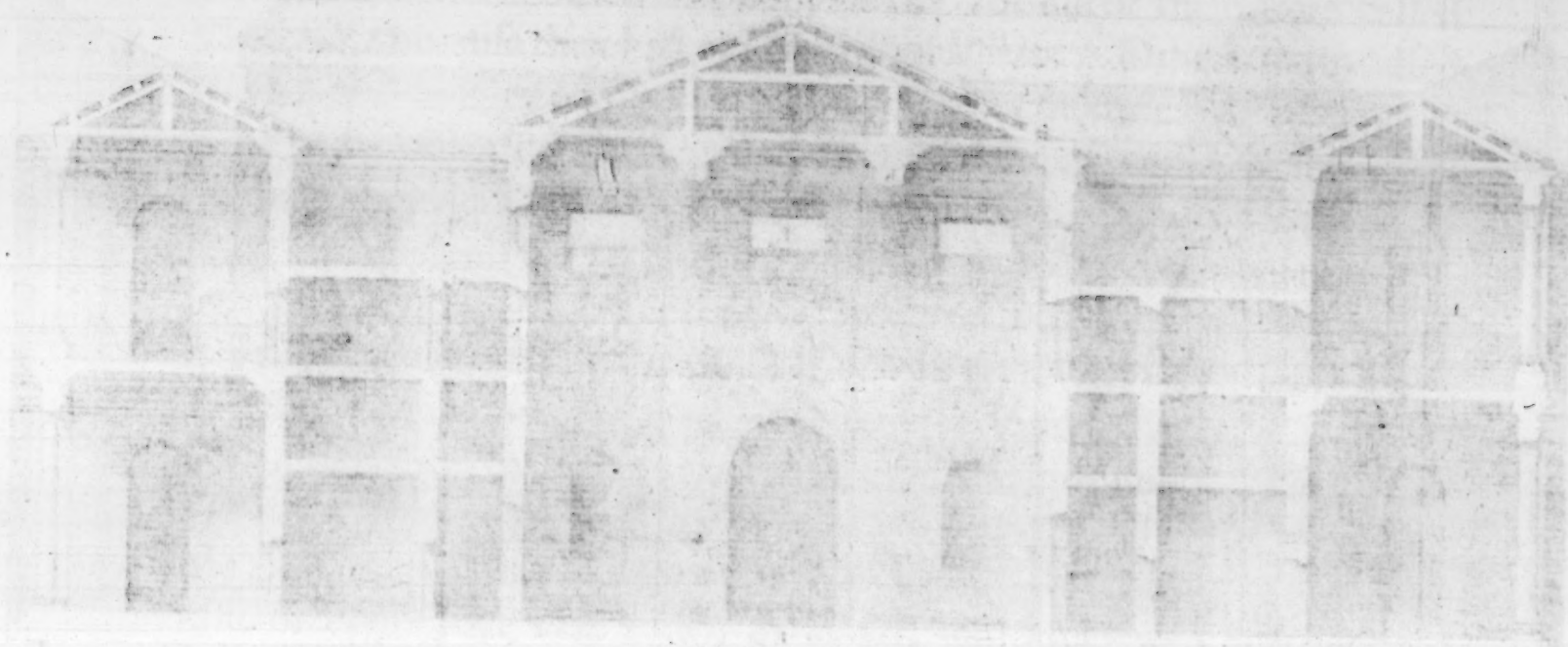
\* Plate XXVI.

† Plate XXVII.

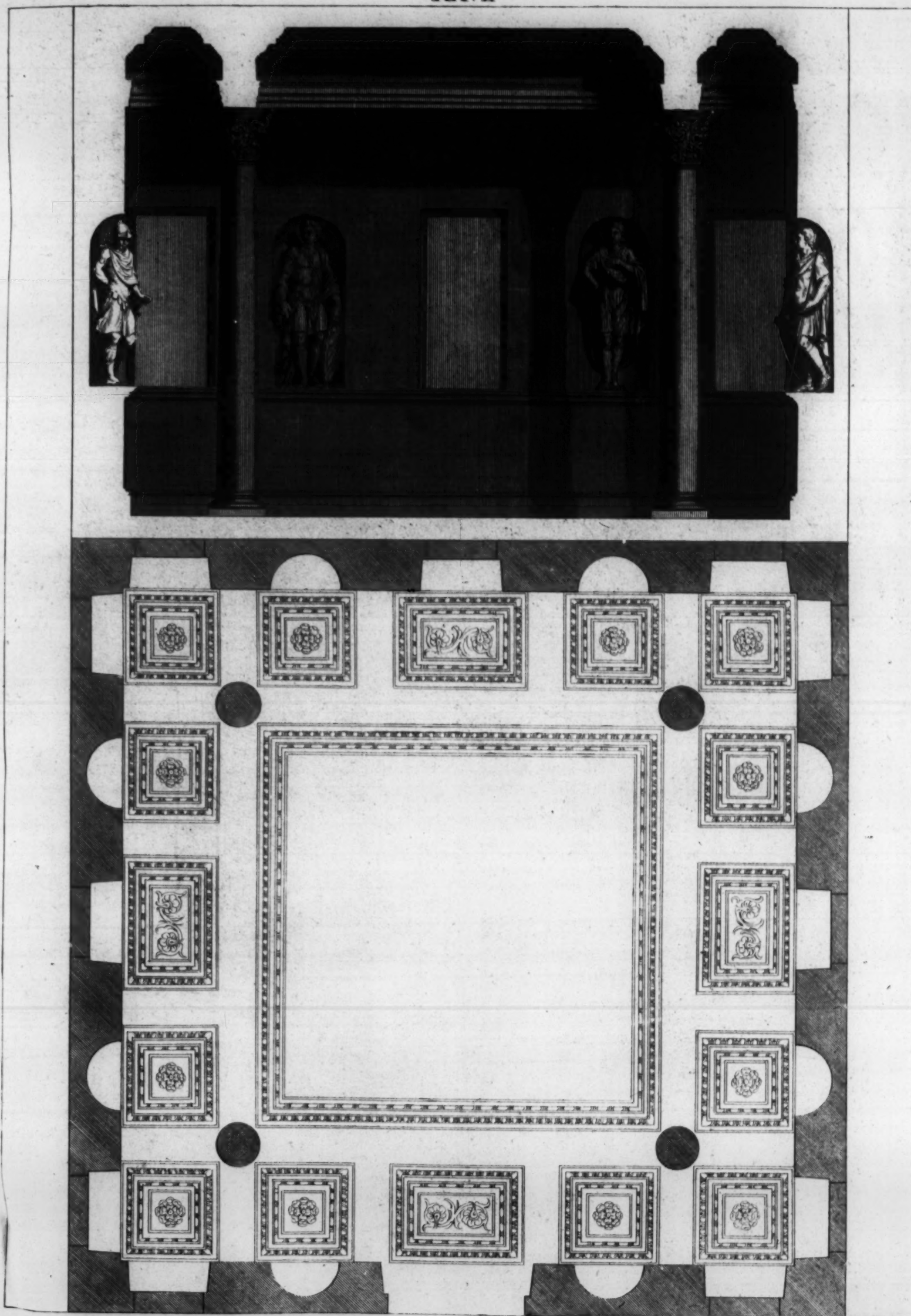








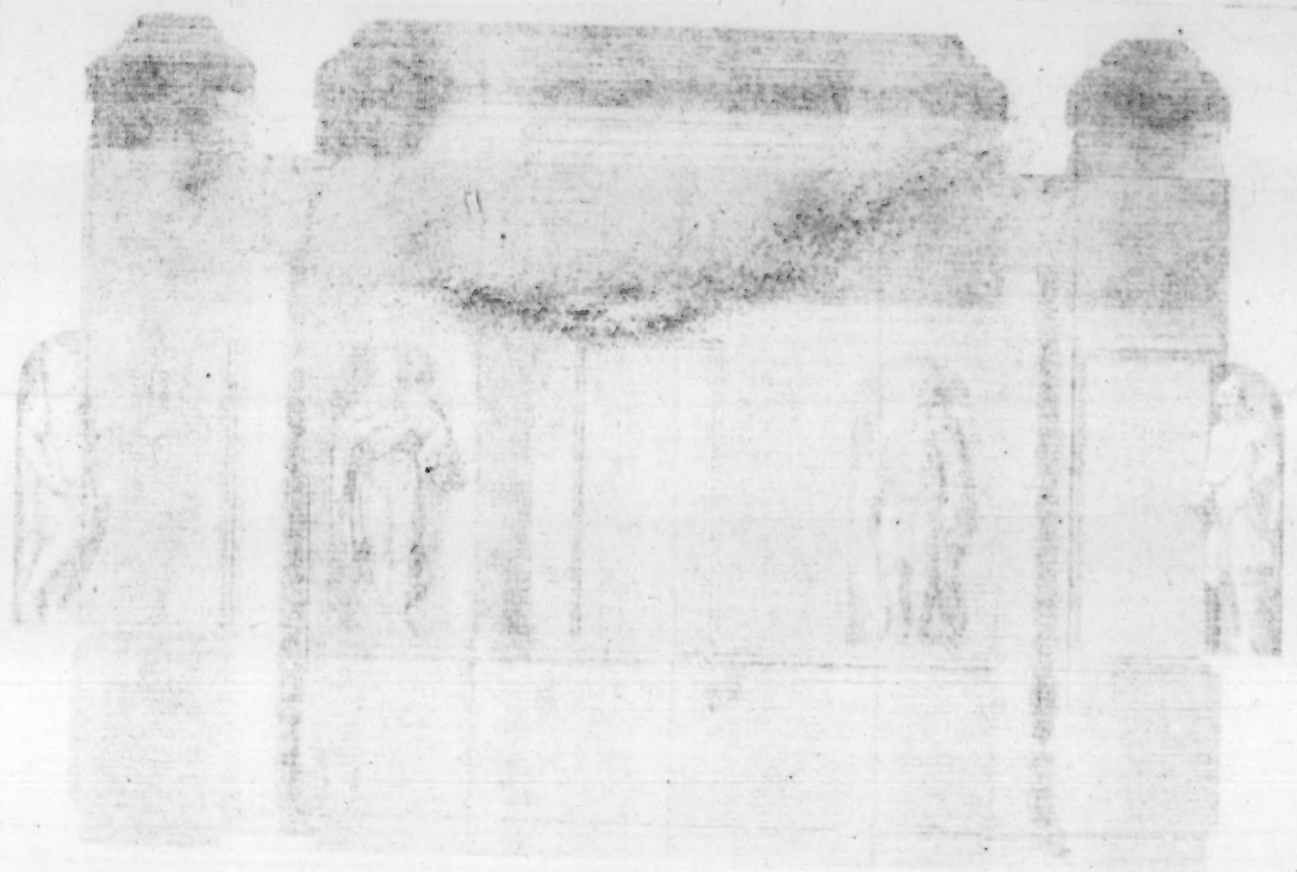




B. Picart Sculp.



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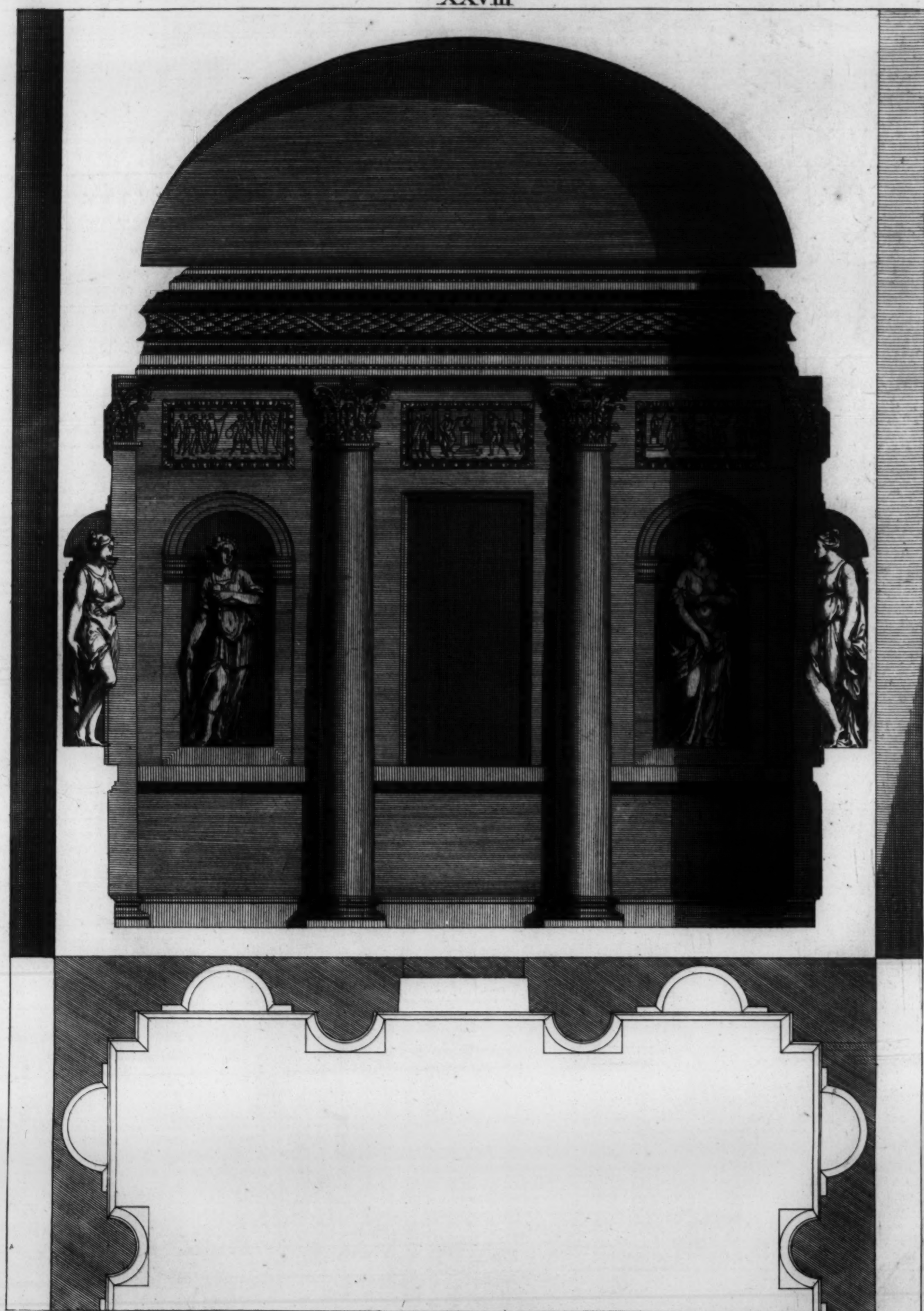




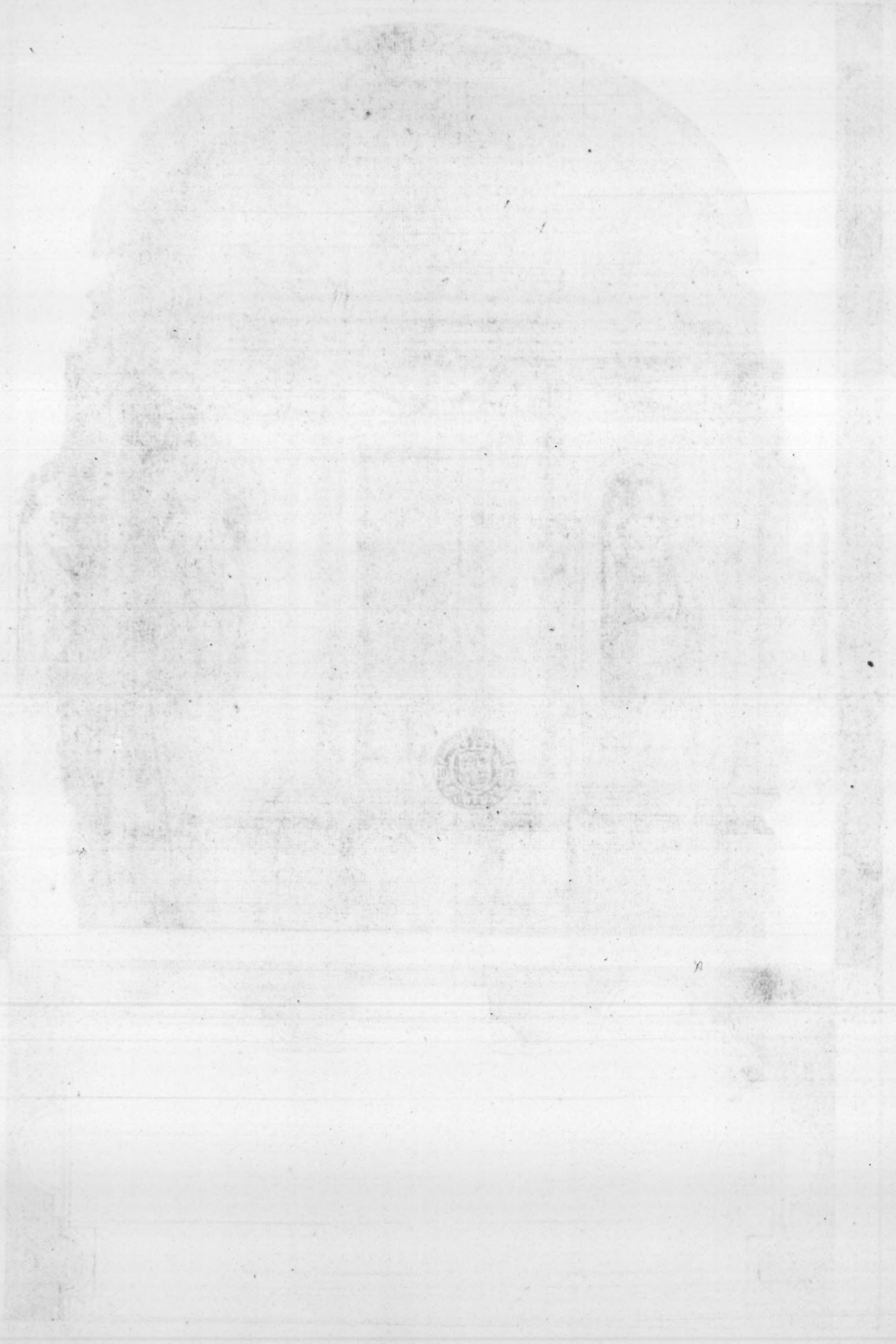
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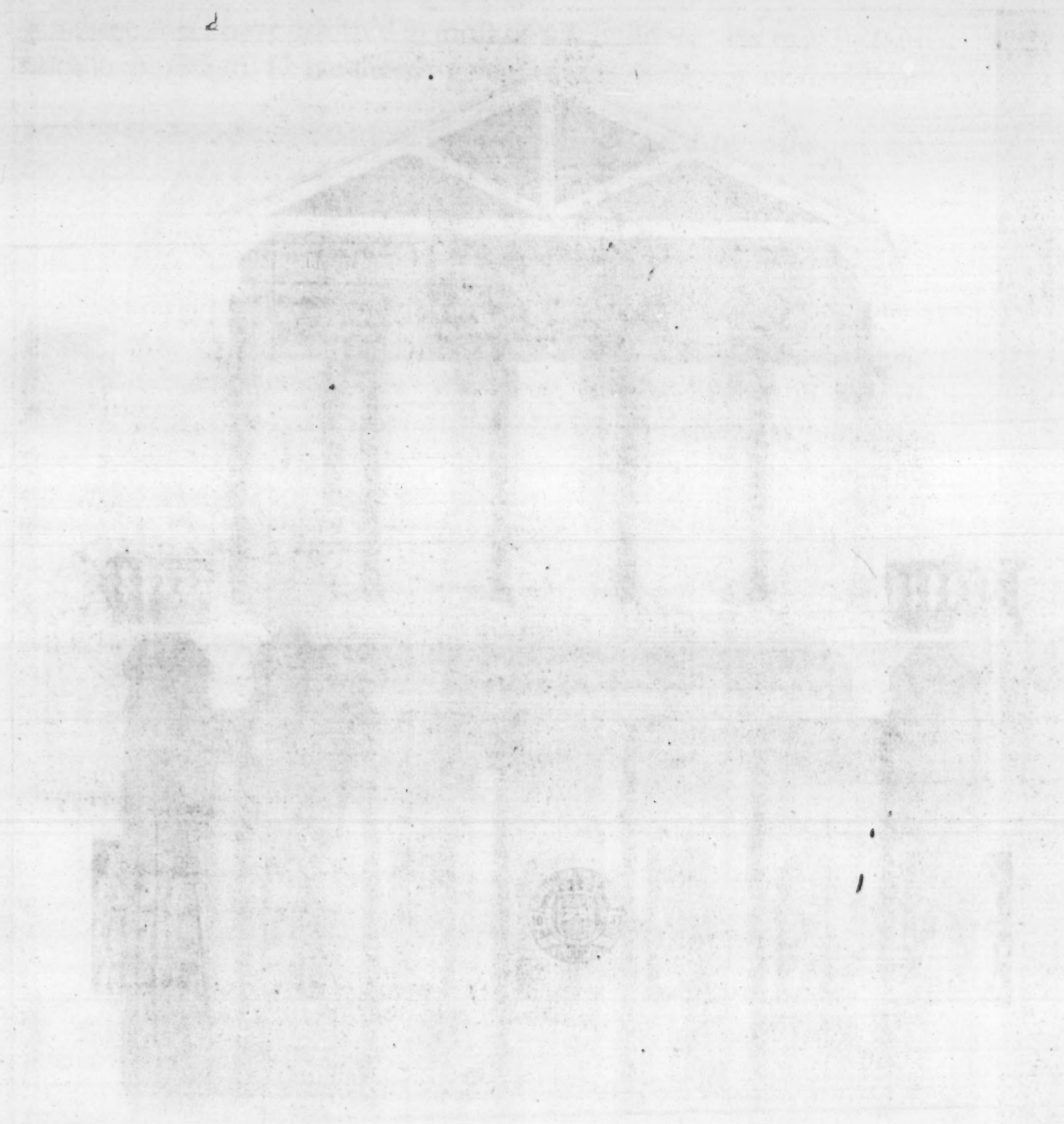




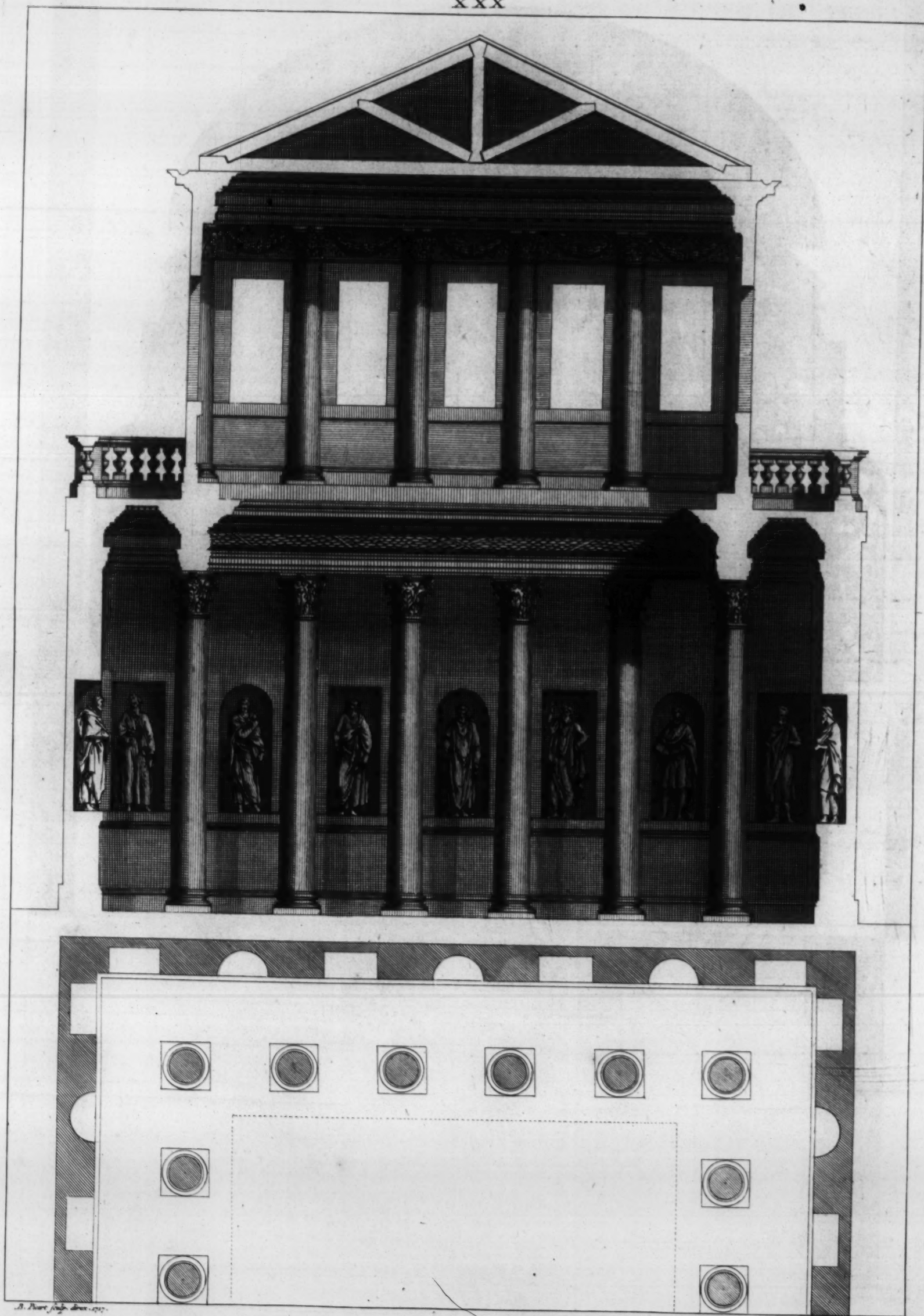














is a thing that I have practis'd in most of my Buildings, as may be seen both in the designs I have already given, and in those that are to follow.



## CHAP. IX.

### *Of the Corinthian Halls.*

**T**HE *Corinthian* Halls were of two sorts. The first had their columns only laid on the Floor, as may be seen in the first design \*; and the second were laid on Pedestals, as in the second design †: But the columns in both were always near the Wall, and the *Architrave*, *Freeze*, and *Cornice* were made with Stuc, or else of Wood, and there was but one row of Pillars. The Ceilings were either made semi-circular, or scheme, that is, so flat as to have in height only one third of the breadth of the Room. They were generally advanc'd with compartments made with stuc and painting. The length of these Halls would be of a fine proportion, if it was of a square and two thirds of their breadth.



## CHAP. X.

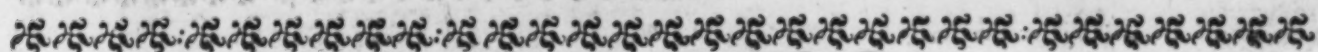
### *Of the Hall after the Egyptian manner.*

**T**HE following design \*\* is for Halls after the *Egyptian* way, which very much resemble *Basilicas*, or Courts of Justice, (of which I shall also speak when I treat of publick Buildings) because these sorts of Halls had a Portico wherein the columns were at a distance from the Wall, after the same manner as in the *Basilicas*; and upon these Pillars were plac'd the *Architrave*, *Freeze*, and *Cornice*. The space between the Pillars and the Wall was cover'd with a platform surrounded by a Corridor with rails and ballusters. Above the same Pillars, there was a continu'd Wall with half Pillars on the inside of it, a fourth part less than the lower ones. Between the said half Pillars were plac'd the Windows that gave light to the Hall, and through which, when laid open, those that were on the platform could look into it. This sort of Halls must needs have been of an admirable magnificence, as well by reason of the ornaments of its Pillars, as for its height; because the

\* Plate XXVIII. † Plate XXIX. \*\* Plate XXX.



*Soffite* reach'd above the Cornice of the second Order, and one may judge how commodious they were, for receiving great companies, for banquetting, and for all manner of Recreations.



## CHAP. XI.

### *Of the private Houses of the Greeks.*

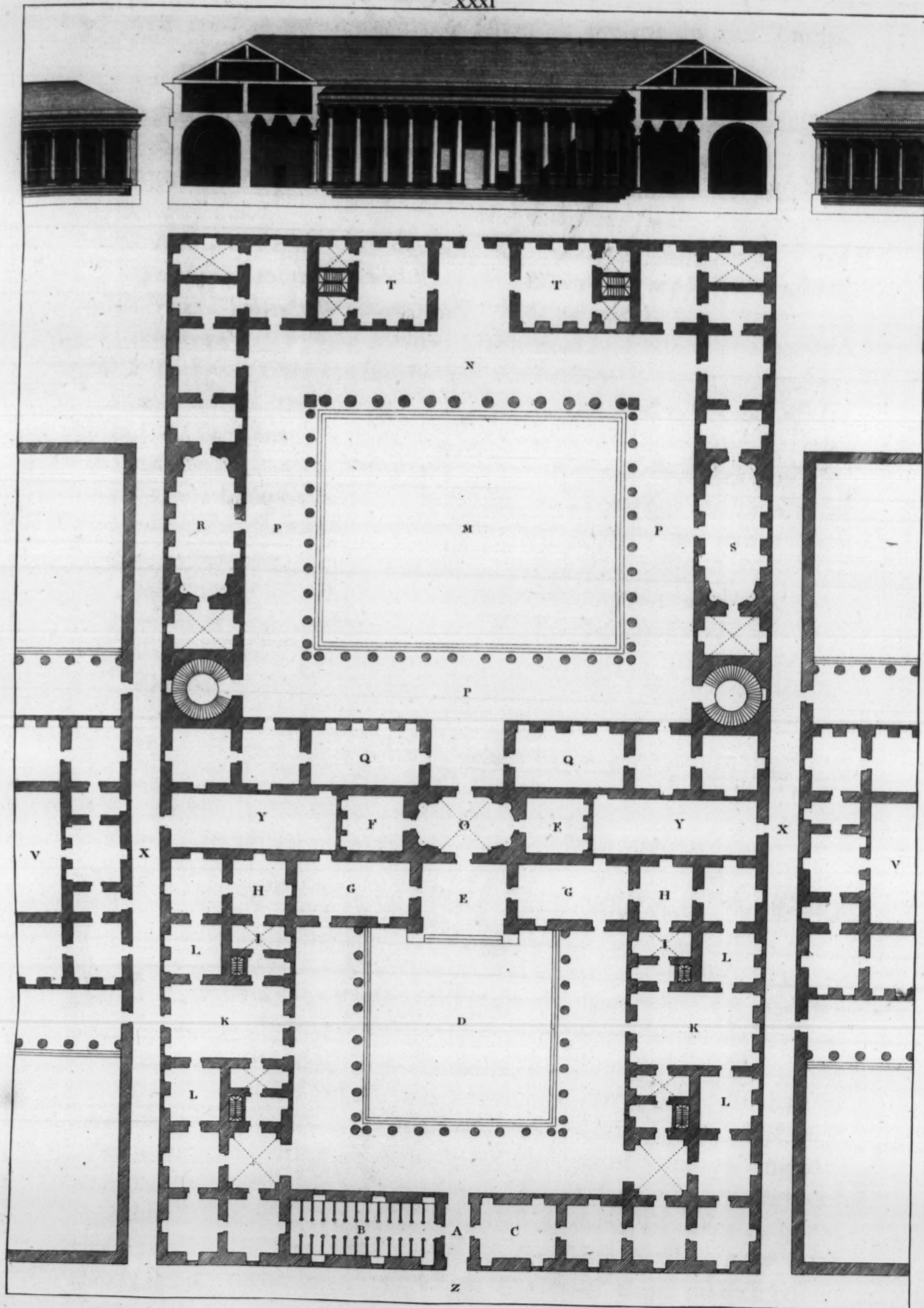


THE *Greeks* had a different way of Building from the *Romans*; for, as *Vitruvius* says, instead of making Portico's, or Galleries and Halls, they made the entry to their Houses very narrow\*, placing on one side the Stables, and the Porter's-lodges on the other. From this first entry, one pass'd into a Court, which had *Piazzas* on three sides, and towards that of the South they made *Anti*, or butments of Pilasters, which supported the joysts of the Ceiling more inwards: because, that leaving some space between the one and the other, they had very large places, which they appointed for Lodgings to the Mistress of the House, and to the Men and Maid Servants. On the same Floor with these butments, there were some Rooms which we may call Anti-chambers, Chambers, and Drawing-rooms, being every one just behind the other. About the *Piazzas* were places appointed for eating, sleeping, and the like Family necessities. To this Building was another join'd, greater and better adorn'd, with larger Courts, wherein they made four *Porticos*, or *Piazzas* of equal height, if they did not make one of a larger size to the South; and then the *Piazza* on that side was call'd *Rhodian*, perhaps because the *Rhodians* first used this manner of Building. In these Courts were very magnificent Galleries to the Front: they had their own Gates, being inhabited only by Men. On the right and left side of this Building they made others, which, as well as the foregoing, had their own particular Gates, with all the conveniencies necessary for a dwelling. There they used to lodge Strangers; for it was a custom among this Nation, that when they had a foreign Guest, they entertain'd him at their own Table the first day; but after that time they assign'd him an Apartment in this kind of House, wherein they furnish'd him with every thing necessary for his maintenance: so that Strangers were thus oblig'd to no Ceremony, and had the same liberty as if they had been all the while at their own home. And now I think I have sufficiently explain'd the antient *Greek* way of Building,

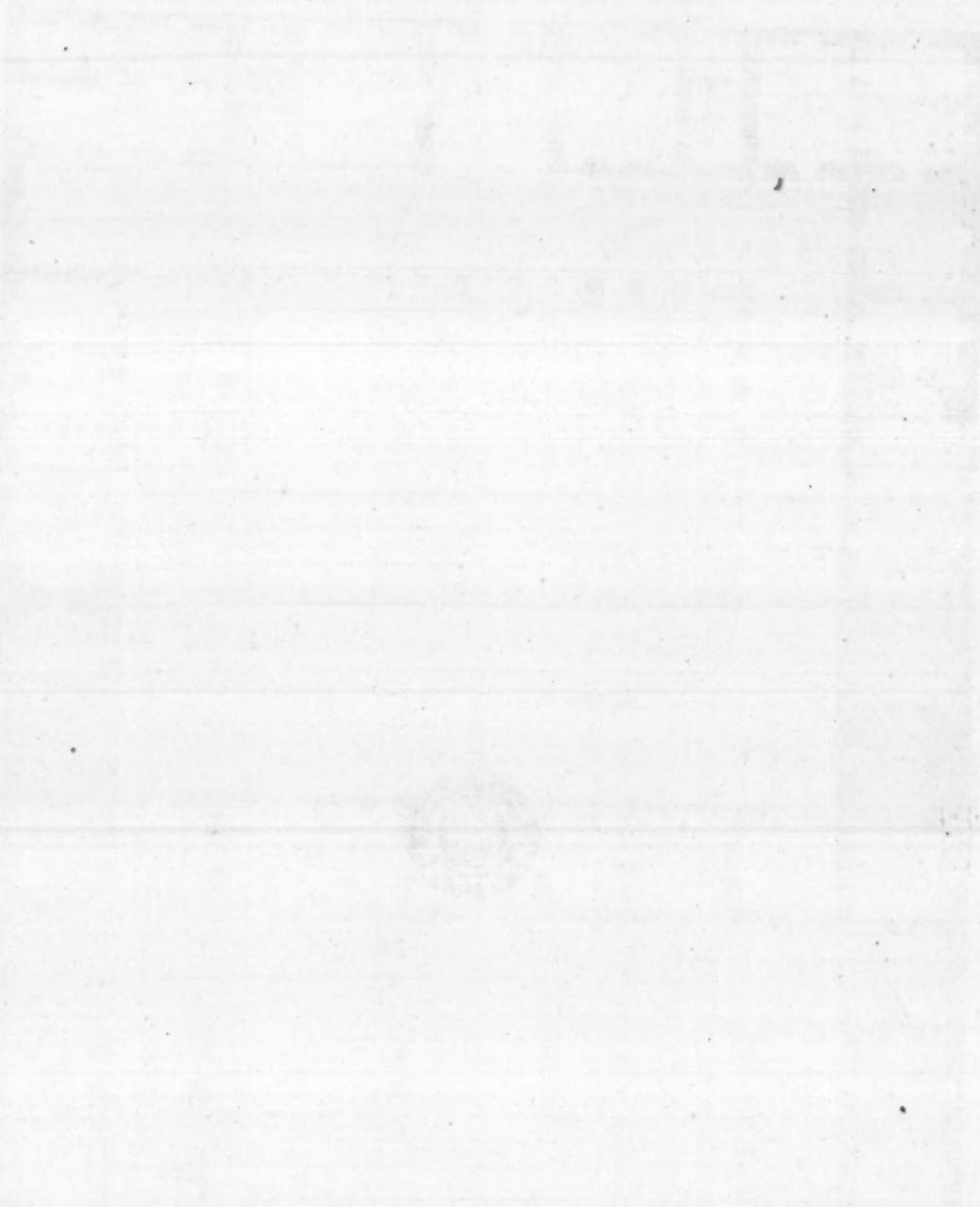
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\* Plate XXXI.











as well as that we practise our selves at present in the Towns.

Parts of a private House after the Grecian manner.

- |   |  |
|---|--|
| A. Passage at the entry of the house.   | O. Passage leading from the little Court to the greater.                           |
| B. Stables.   | P. Three Piazzas, the pillars of which are small.                                  |
| C. Porter's Lodge.  | Q. Cizicene Refectories, and Chanceries, or places that used to be painted.        |
| D. First Court.   | R. Hall.   |
| E. Lobby, or Vestibule, thro which people pass into the rooms.                | S. Library.  |
| F. Places where the women did their work.                                     | T. Square Hall where they used to eat.   |
| G. First great Chamber, which we may call an Anti-chamber.                    | V. Apartments for Strangers.   |
| H. A lesser room.   | X. Small passages which divided the strangers apartments from those of the master. |
| I. A Closet.  | Y. Small open Courts.  |
| K. Great dining-room.   | Z. The principal street.   |
| L. Common Chambers.   |  |
| M. Second Court, larger than the first.                                       |  |
| N. Piazza larger than the three others, the Court of which is call'd Rhodian. |  |



## CH A P. XII.

### *Of the Situation which ought to be chosen for Country Houses.*

**A**S certainly 'tis highly creditable and convenient for a Gentleman to have a House in the City, where he is oblig'd sometimes to reside, either as occupying some publick Post in the Government, or for the management of his own private Affairs; so perhaps he may receive no less pleasure and advantage from a House in the Country, where he passes the rest of his time in seeing and improving his own Possessions, in augmenting his substance by industry and agriculture; where, by exercising himself, either in walking, or on Horse-back (which are only proper for the Country) he preserves his Body strong and healthy; and where, in a word, the mind being overlabour'd by the fatigues of the City, will be singularly recruited and recreated:



recreated: so that he may then quietly apply himself to the study of Books, or the contemplation of Nature, in imitation of those anti-ent Sages, who, on such accounts, used frequently to retire to the like places; where being visited by their virtuous Friends and Relations, and possessing Pleasure-houses, Gardens, Fountains, and such other objects of diversion, but above all their own virtue, they cou'd easily attain that highest pitch of a happy Life, that on this earth can be possibly enjoy'd. Now having already, by the help of God, finish'd all I had to say with relation to Houses in the City, 'tis but reasonable I should pass next to those in the Country, where private Affairs and Family-business are chiefly transacted. But before we come to give the design and draughts of such, it appears very proper to discourse a little about Situation, or the places fit to be chosen for such Buildings; and of the compartment, or distribution of the parts of the same: because not being commonly (as in Towns) straiten'd for room by publick Buildings, nor confin'd by our Neighbours to certain determinate bounds, it is the duty of an able Architect to find out with all care and diligence the most commodious and healthy places; since People live in the Country for the greatest part of the Summer, during which season, our Bodies, even in the healthiest region, are apt to grow weak and sickly, by reason of the heats. In the first place therefore, let the seat pitch'd upon be, as near as possible, the most convenient for the owner's Estate, that is, towards the center of the same; to the end that without much fatigue, he may himself view the whole at any time, and make improvements all around; as likewise that the Tenants and Labourers may the more easily bring the growth of it to his House. If the Building can be erected near a River, it will much conduce to its Beauty and Convenience; because thus not only the products of the Land can at all times be the more easily carry'd by Water to the City, and that the Water itself will serve the uses of the House and Cattle; but it will render the prospect most agreeable, notably refresh the Air in Summer, and with no small advantage, as well as ornament, water the Fields, Gardens, and Stalls, which are the very soul and support of a Country *Villa*. But if the situation can't be near a navigable River, let it be however near some Brook, or other running Water, and as far as may be from dead or stagnant Waters; because these generate the very worst of Air, which may be easily avoided, by building in elevated and agreeable places: I mean where the Air, being free, is in a continual motion, and the Earth, by reason of its declivity, purg'd from all humid and noxious Vapours; where the Inhabitants are heal-



healthy, chearful, and very well complexion'd ; and where one is not disturb'd with the noise of Gnats, and other troublesome little Animals, which breed in putrefy'd and marshy Waters. Yet since Water is absolutely necessary to the life of Man, and that Waters of different qualities produce in us different Effects (whence some beget the Spleen, some the Gout, others the Stone, and others other Distempers) so the utmost care is to be taken, that the House may be near such Water as has no odd or ill taste, and that has no particular Tincture: but, on the contrary, that it be limpid, clear, light, and such as, sprinkled, will not stain white Linnen, all these being signs of its goodness. *Vitruvius* has taught us many ways of trying the goodness of the Water; and that Water is held perfect in its kind, which makes good Bread, wherein greens are quickly boil'd, and which leaves no sediment in the bottom of the Vessel. It is an excellent mark of the goodness of Water, if in its passage there neither grow moss nor rushes; but that its bed be clean and fine, with sand or gravel at the bottom, and without mud or slime. The very animals that drink ordinarily of such Waters will give marks of their goodness, if they are hearty, brisk, strong, and in good case, being neither lean nor feeble. As for the salubrity of the Air, an indication of it, over and above those already mention'd, may be taken from old Edifices, if they are neither corrupted nor consumed; from the Trees, if they be thriving, beautiful, strait, and none of those that naturally grow in fenny places; from the Rocks and Stones of the place, if they show no signs of rottenness in the part that's above the surface of the Earth; and even from the complexion of the Inhabitants, if it be natural, and shows a good Constitution. None ought to build in Vallies enclos'd by Mountains: because Houses hid in such places, besides their being depriv'd of distant Prospects, and that they are not conspicuous to others, which loses all their Beauty and Reputation; they are moreover in every respect injurious to health, because the Earth, being impregnated with the Rains that settle there, sends forth Vapours pestiferous, not only to the Bodies, but also to the minds of Men; the spirits being by their means debilitated, the joints emasculated, the Nerves relax'd, and the Provisions carry'd into Magazines and Graineries corrupted with moisture. If, on the other hand, the Sun can penetrate into those bottoms, the reflection of its Rays will cause excessive heats; or if it enters not, then a perpetual shade will render the People stupid, and spoil their Complexion.



on. When the winds blow into them they are too impetuous, by reason of the narrow chops thro which they must pass; and when they blow not there, the air stagnating of course, will become gross and sickly. The resolution being taken therefore to build upon an eminence, let a situation be chosen that faces the temperate region of the Air, and that is neither always overshadow'd by higher Hills, nor scorch'd up, as it were, with two Suns, by the reflection of the true one from some neighbouring Rock: for in either of these cases, it becomes an inconvenient habitation. Finally, in chusing a situation for the building of a *Villa*, or Country-house, all those considerations are requisite, which are used in chusing the situation of a City-house: for as the City is but one great House, or Family; so every Family, or private House, is a little City.

\*\*\*\*\*

### C H A P. XIII.

#### *Of the Compartments of Country-houses.*

**A**FTER having found and pitcht upon an airy, pleasant, advantageous, and healthy Situation, one must think next on the Compartment of the Building, or the distribution of its parts, and to make it both elegant and convenient. Two sorts of Houses are necessary in the Country: one for the dwelling of the Master and of his Family; the other for the Farmer, who improves the Land and gathers the Rents, as well as for lodging the Cattle and the fruits of the Earth. Therefore it will be requisite to dispose the situation of both the Buildings in such a manner, that the one may be no impediment to the other. The Master's House must be made suitable to his Quality, and proportion'd to the number of his Retinue, after the same manner as the City-houses, whereof we have treated before. There must be proper covers made for every thing belonging to the *Villa*, in proportion to the product of the ground and number of the Cattle, and contiguous to the main House, that the Master may easily go every where shelter'd, without being hinder'd from minding his business by either Snow, or Rain, or the scorching heat of the Sun. This will serve also to shelter the Wood, and other numberless Country Provisions, which too much moisture of the Air, or the heat will spoil; besides, that such *Piazas* will make the Building look much greater. Regard must also be had



Provisions; with all the Country tools and luggage conveniently, and allow them room enough. The Chambers of the Steward, of the Farmer, and of the Labourers, must be in a place convenient for them, and near the Gates for the security of the other places. The Stalls and Stables for labouring Cattle, such as Oxen and Horses, must be far from the principal House, because of the ill smell of their dung; but they ought to be in a warm and airy situation. All breeding Creatures, such as Hogs, Sheep, Pigeons, Fowls, and the like, require each a place proper to their kind; and in this matter one must be ruled by the different customs of Countries. The Cellars must be under ground, very close, and in a dry place, far from all noise, moisture, or any ill smell. They ought to receive their light from the East to the North: because that the Sun shining from the other sides, would be apt to heat, debilitate, and spoil the Wine or other Liquors. One must give them a little declivity in the middle, upon a cement Pavement, or else with square Stones so well join'd together, that should the Wine happen to spill, one may take it up again. The tubs wherein the Wine is working, must be under covert near the Cellars; and be raised so, that the props may be a little higher than the bung-hole of the Pipes, to the end the Wine may be easily carry'd thro Channels made of Leather or of Wood into the said Pipes.

The Granaries must have their light from the North, because that on this side they won't be expos'd to the heats, but rather refresh'd by the Wind; and the Corn will be much better preserv'd, without being infested by the Mice, and such other Vermin as do it a great deal of hurt. One must floor the Granaries with excellent Earth; but when such is not to be had, Deals must be used, because Lime is a great Enemy to Corn.

The other Store-houses, on the very same account, must have their lights to the same side. The Hay-lofts may be to the South or West; because when the Hay is thus well dry'd by the Sun, there will be no danger it should corrupt and take fire. The tools and implements belonging to Tillage, are best under coverts turn'd to the South. The Barns where the Corn is threshed must be expos'd to the Sun, spacious, large, upon a firm ground, and a little rais'd in the middle; as round about it, or at least on one of its sides, there ought to be a *Piazza*, that in case of a sudden Rain, one may immediately secure the Corn. 'Tis not proper it should be too near the Master's House, because of its  
Y dust;



dust; but it ought not to be so far from it, but that it may be within his view.

This in general is sufficient concerning the choice that is to be made of the Situation and Compartment of Country-houses: now, to acquit my self of my promise, I shall give here the draughts of some Houses, which, according to several Inventions, I have built in the Country.



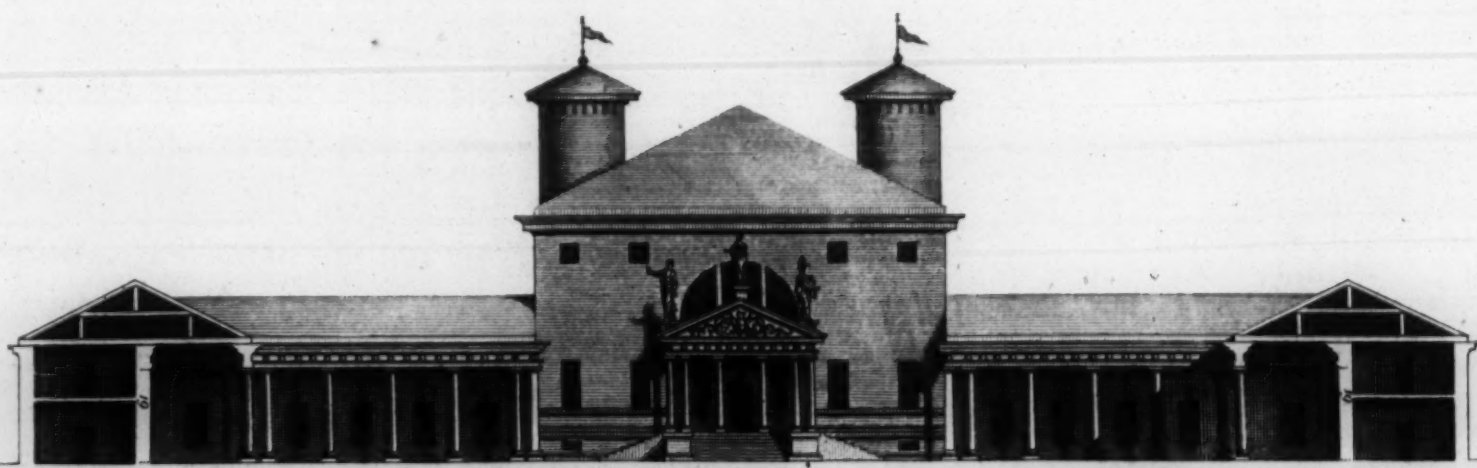
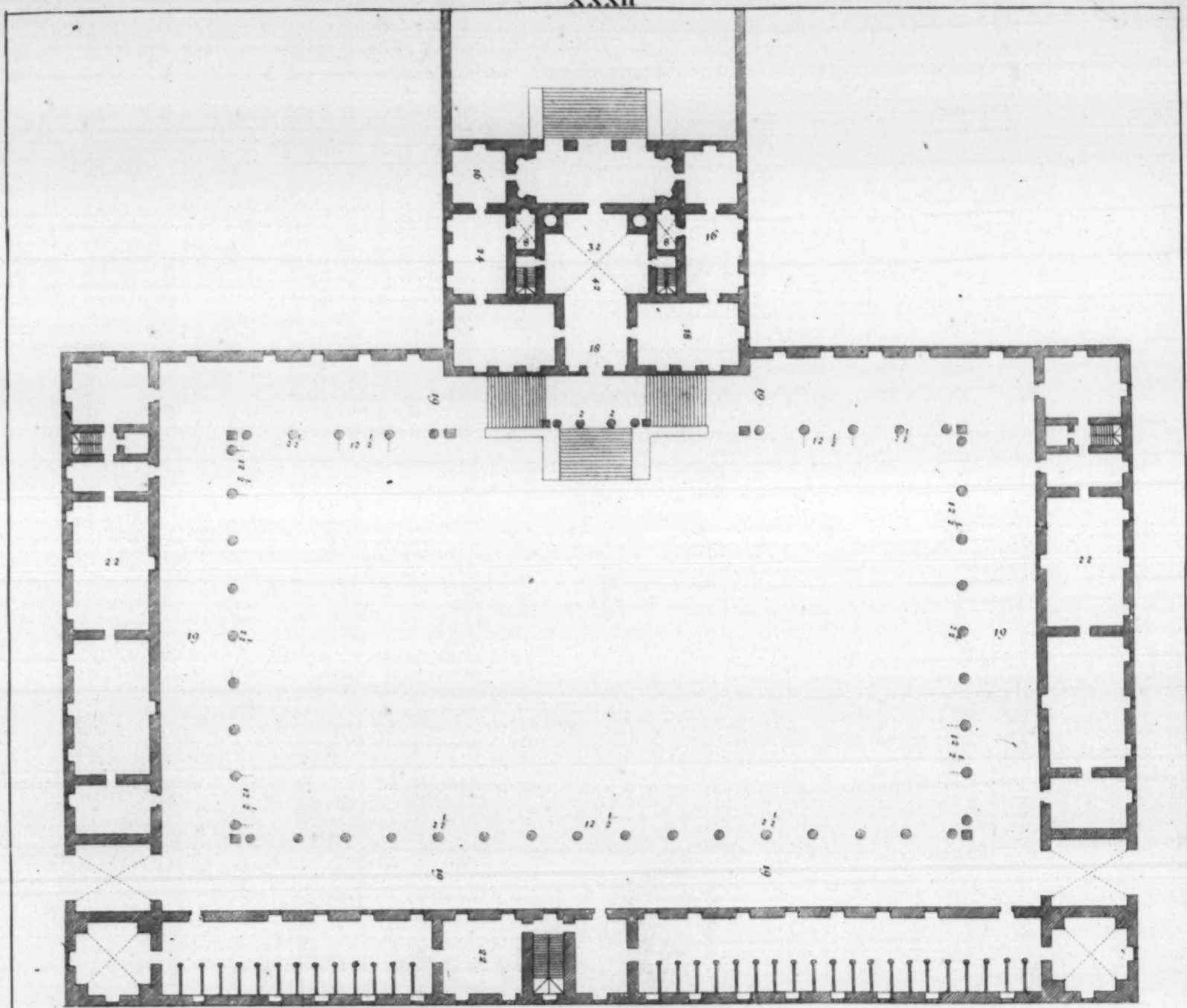
## CHAP. XIV.

### *The Draughts of several Country-houses built by noble Venetians.*

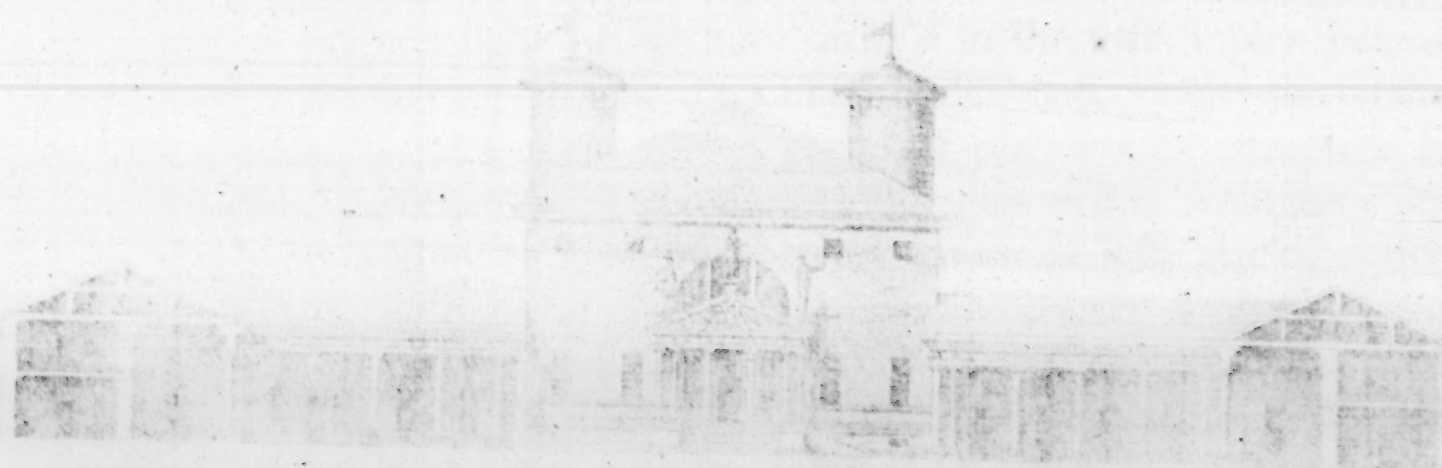
**T**HE following House \* is at *Bagnolo*, within two miles of *Lontigo*, a Castle in the *Vicentin*, belonging to the three Brothers, the magnificent Counts *Victor*, *Marco*, and *Daniel Pisani*. On both sides of the Court are the Stables, Cellars, Granaries, and such other places for the service of the *Villa*. The Columns of the Porticos are of the *Dorick* Order. The Lord's Apartment is in the middle of the Building. The Floor of the first Chamber is rais'd seven foot above the level of the Ground, under which is the Kitchen, and other places belonging to the Servants. The Hall is arch'd, its height being equal to its breadth, and one half more. The Arches of the Galleries have likewise the same proportion. The Chambers are ceil'd, and as high as broad; the greatest are a square and two thirds long; the others are but a square and a half. There was not so great regard had in placing the two back-stairs, where they might receive a clearer light (as we have order'd in the first Book) because these Stairs serving only for the Offices underneath, or for the Granaries and other like places above, the chief care was to compleat the middle Apartment where the Master lodges, as well as Strangers; and the Stairs leading to this Story are very advantageously plac'd, as may be seen in the draught. Let this serve for a general advertisement to the prudent Reader, with respect to all the other Houses which have but one Story; because in such as have two fine ones, and well adorn'd, I have taken care to order it so, that the Stair-cases are very lightfome, and in convenient places: I say two Stories, be-

\* Plate XXXII.

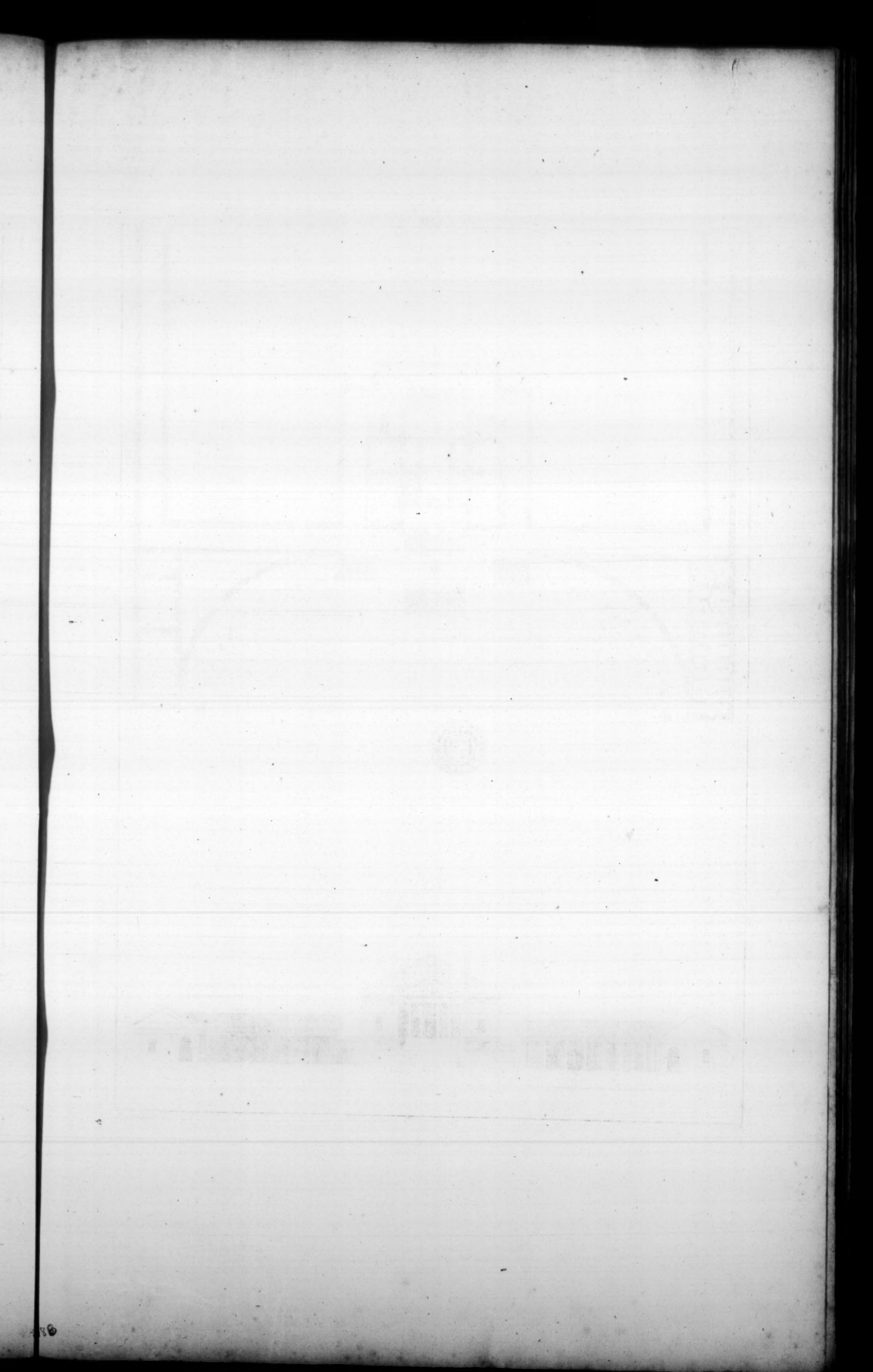




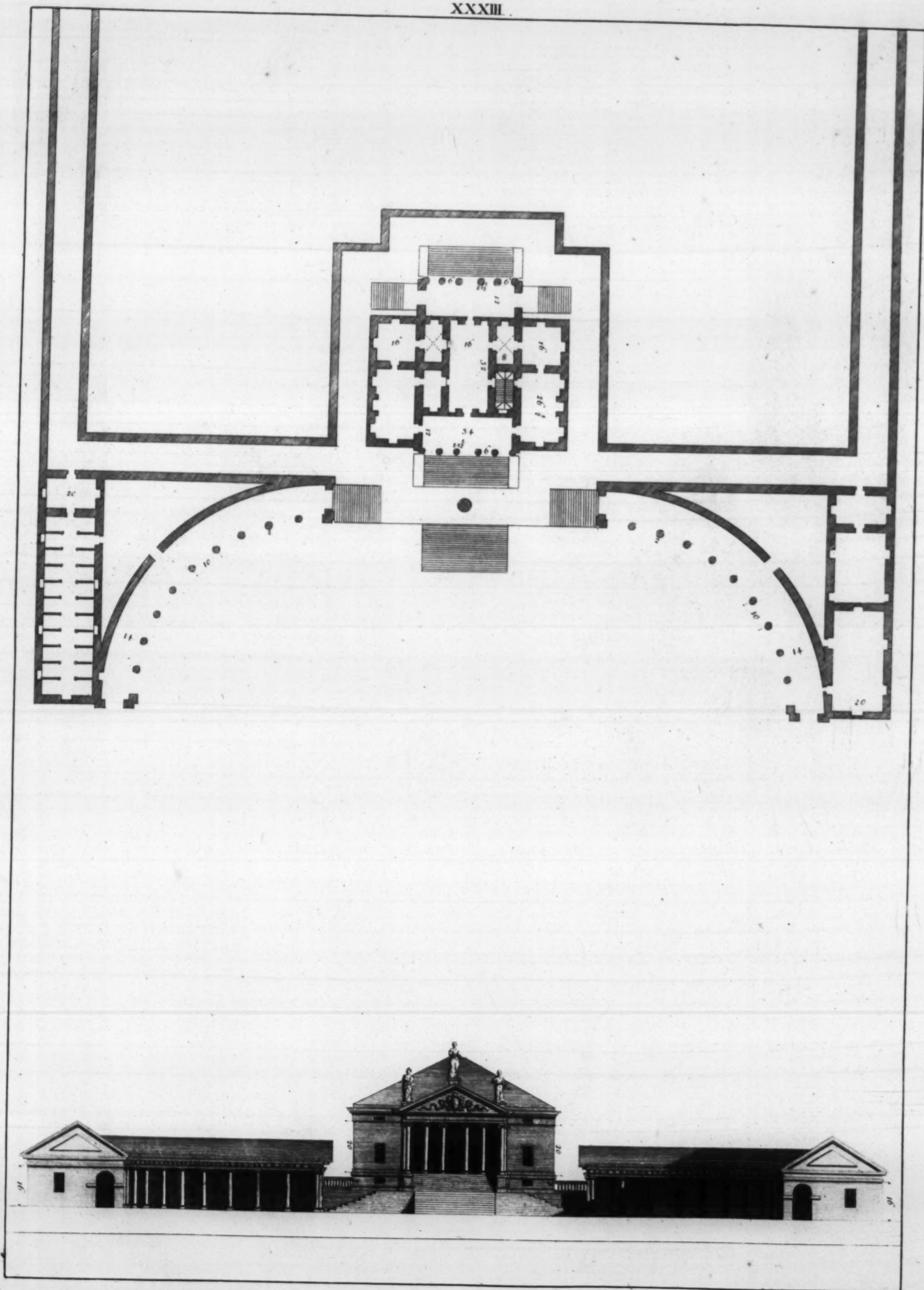










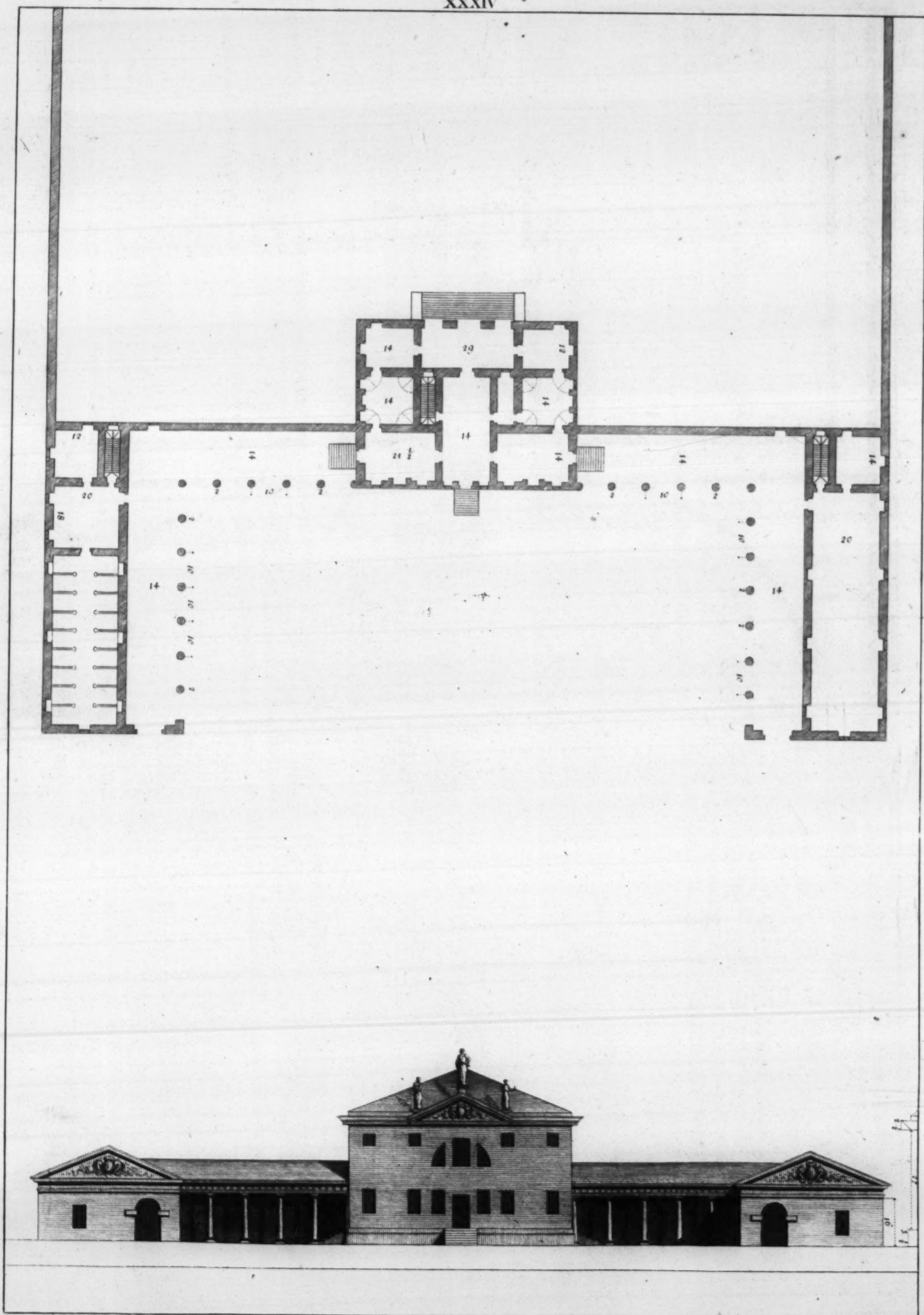


J. Cole Sculp.







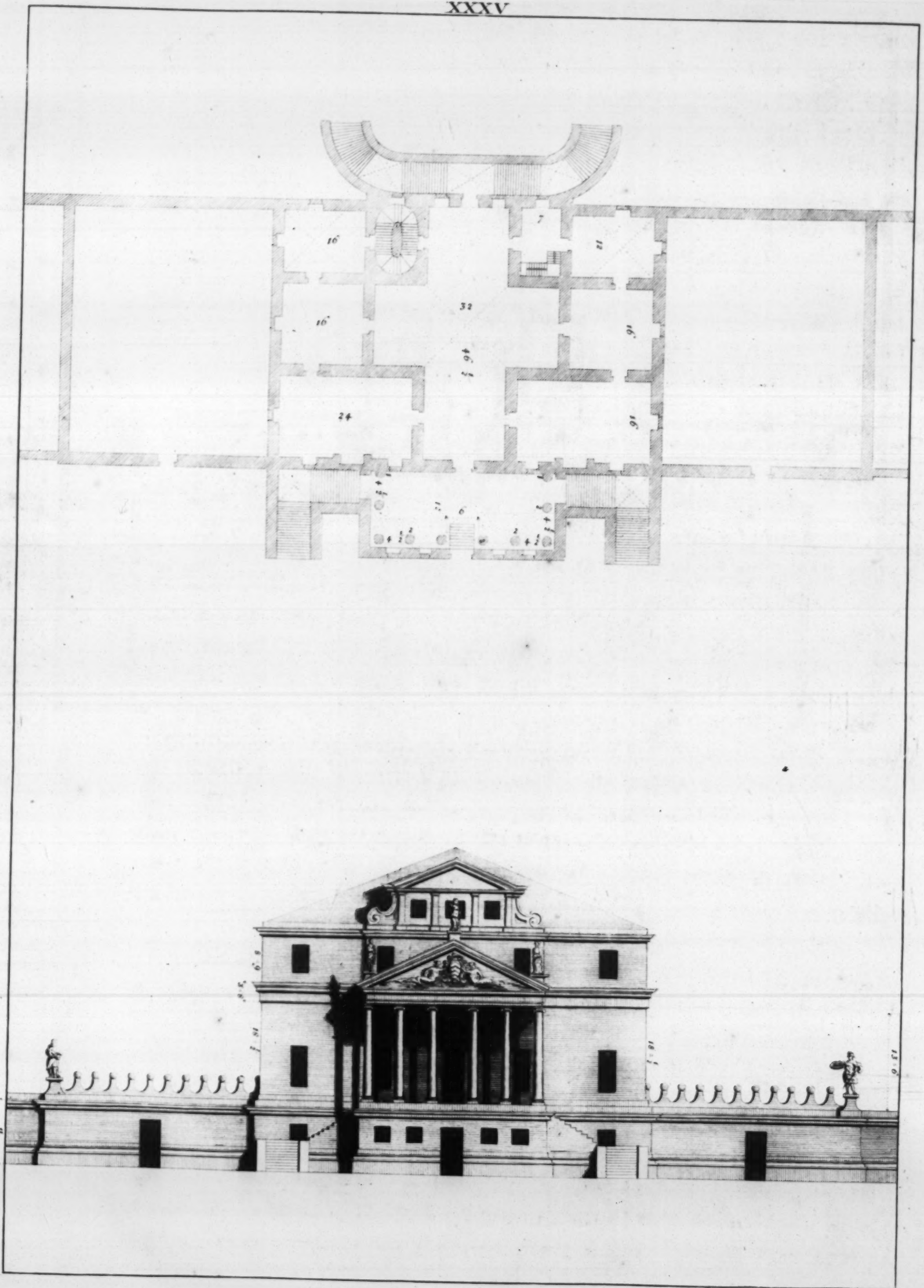


J. Cole Sculp











cause neither what is under ground for Cellars and such uses, nor what is above for Granaries and Garrets, is reckon'd among the principal Stories, as not serving to lodge Gentlemen.

The House following \* belongs to the magnificent Lord *Francisco Badoero* in the *Polesine*, in a place call'd *la Frata*. 'Tis situated upon an ascent, at the foot of which passes a branch of the *Adige*, where a Castle of *Salinquera de Este*, Brother-in-law to *Ezzelino Romano*, antiently stood. All this Building has a Pedestal five foot high for its Basis, at the level of which is the floor of the Chambers, which are all of them ceil'd and painted in *grotesque* of a very fine Invention, by *Giallo Fiorentino*. The Granaries are above; and the Kitchen, with the Cellars and other conveniencies, are below. The Columns of the Galleries in the body of the House are *Ionick*. The Cornice goes about the whole House like a Crown. The pediment over the Portico makes a very fine shew, raising the middle of the House higher than the wings. Afterwards, as one goes downwards, there are the Farmer's and Steward's Habitations, the Stables, and such other places fit for a Country-house.

The magnificent Lord *Marco Zeno* has put the following invention † in practise at *Casalto*, which is a place near the Castle of *la Motta*, in the *Trivigian*. It stands upon a basement, that furrounds the whole Building, equal with the floor of the Rooms, which are all arch'd. The height of the largest is according to our second manner. The Arches of the square Rooms are grind-ed in the angles about the Windows: Those of the Closets, or Rooms near the Galleries, are *fasciated*, as are those of the Hall. The Hall and Galleries are arch'd of an equal height, and are likewise both of them higher than the Rooms. This House has Gardens, a Court-yard, a Dove-house, and every thing that is necessary for a Country dwelling.

Near to *Gambarare*, on the *Brenta*, is the following Building \*\*, which is the House of the magnificent Lords *Nicolo* and *Luigi de Foscarei*. The House is raised eleven foot from the level of the ground, and below are the Kitchens, Pantries, and the like places. Every thing is arch'd as well above as below. The Arches of the great Chambers are made after our first manner. Those of the squares are arch'd round like a Cupola. On the Closets are *Mezanini*. The Hall is arch'd half round grinded: its impost is as high from the Floor as the breadth of the Hall, which is excellently painted by *Messer Battista Venetiano*. *Messer Battista*

\* Plate XXXIII.

† Plate XXXIV.

\*\* Plate XXXV.



*Franco*, one of the best draughtsmen of our time, did also begin to paint one of the great Chambers, but he dy'd before he could finish his Work. The Portico is of the *Ionick* Order. The Cornice goes round the whole House, and makes a pediment above the Portico, as well as on the opposite part. Under the Eaves of the Roof there is a second Cornice, which passes above the pediments. The upper Rooms are like *Mezaninos*, because of the little height they have, which is but eight Foot.

At *Masera*, near the Castle of *Afelo*, in the *Trivigian*, is the following \* House, which belongs to the most Reverend *Daniel Barbaro*, Patriarch elect of *Aquileia*, and to the Lord *Marco Antonio Barbaro*, his Brother. That side of the Building which advances a little outwards, has two stories of Rooms. The floor of the higher ones is level with a Court that is behind, where there is a Fountain wrought in the Mount directly over-against the front of the House, with an infinite number of Ornaments, both of Stuc and Painting. This Fountain forms a little Lake, which serves for a Pond; from whence the Water over-flowing, goes into the Kitchen, and runs afterwards thro the Gardens, which are on the right and left of the high Road which leads gradually to the House: there it makes two little Ponds, which serve also for watering-places on the high-way, and running still further, it waters the Orchard, which is very large, and fill'd with excellent Fruit-trees, and all sort of pulse.

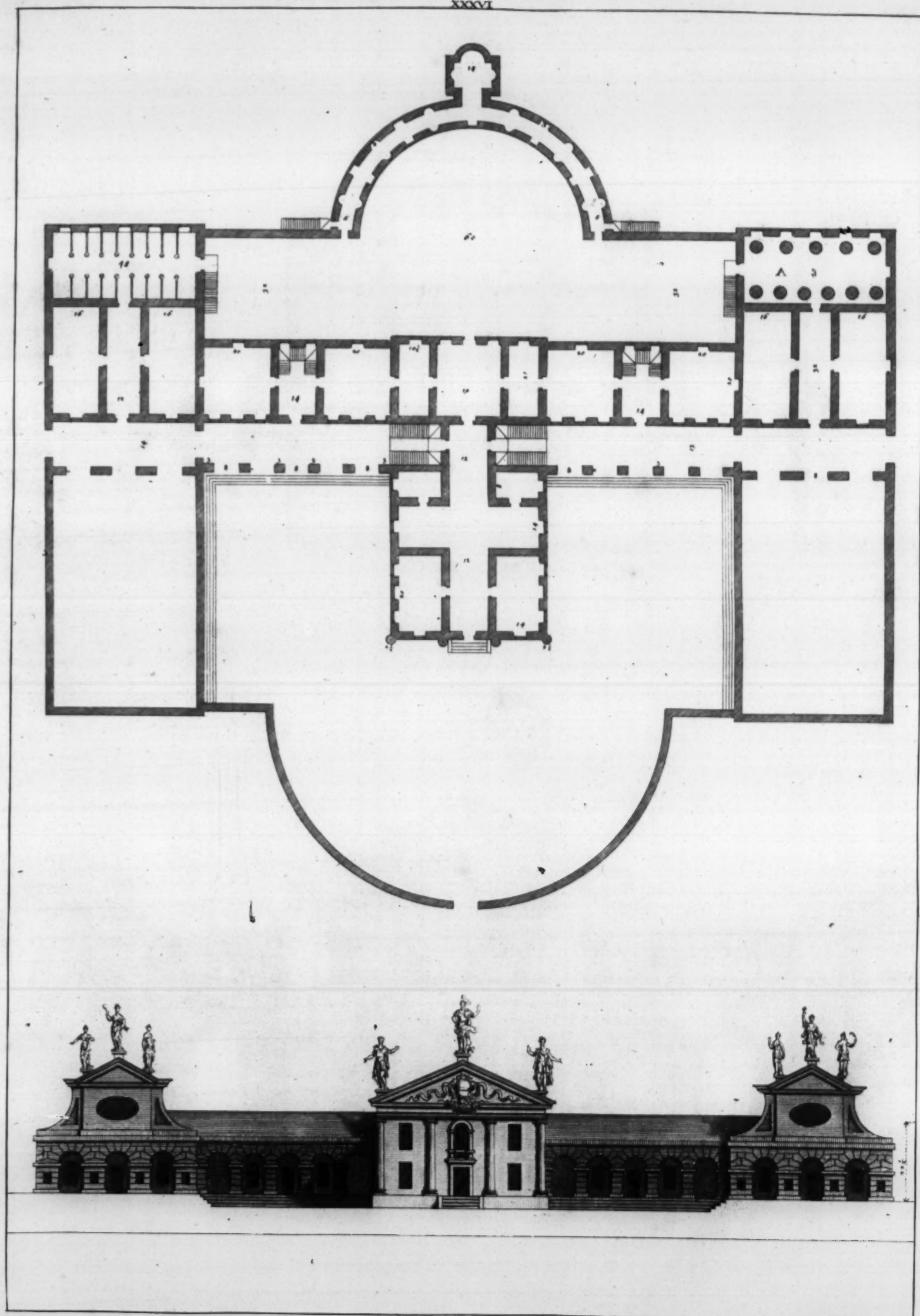
The front of the Master's Apartment has four Columns of the *Ionick* Order. The capitels of these on the angles, face, or show alike on both sides. I shall teach the manner of making these capitels in the book of Temples. There are Galleries on both sides of the House, at the end of which are two Pigeon-houses; and below them are the presses for the Vintage (*at the place mark'd A in the plan*) with the Stable, and other necessary places for Husbandry.

The following House † is near the gate of *Montagnana*, a Castle in the Territory of *Padua*, and was built by the Lord *Francisco Pisano*, after whose passage into a better Life there remain'd part of it unfinished. The great Chambers are a square and three quarters long; the Arches are schem'd, and according to our second manner. The second size Rooms are square, and their Arches round or oven-wise. The Closets, and the Passage between, are of the same breadth: their Arches are two squares high. The Entry has four Columns, a fifth less than those which are without; and they support the floor of the Hall: besides

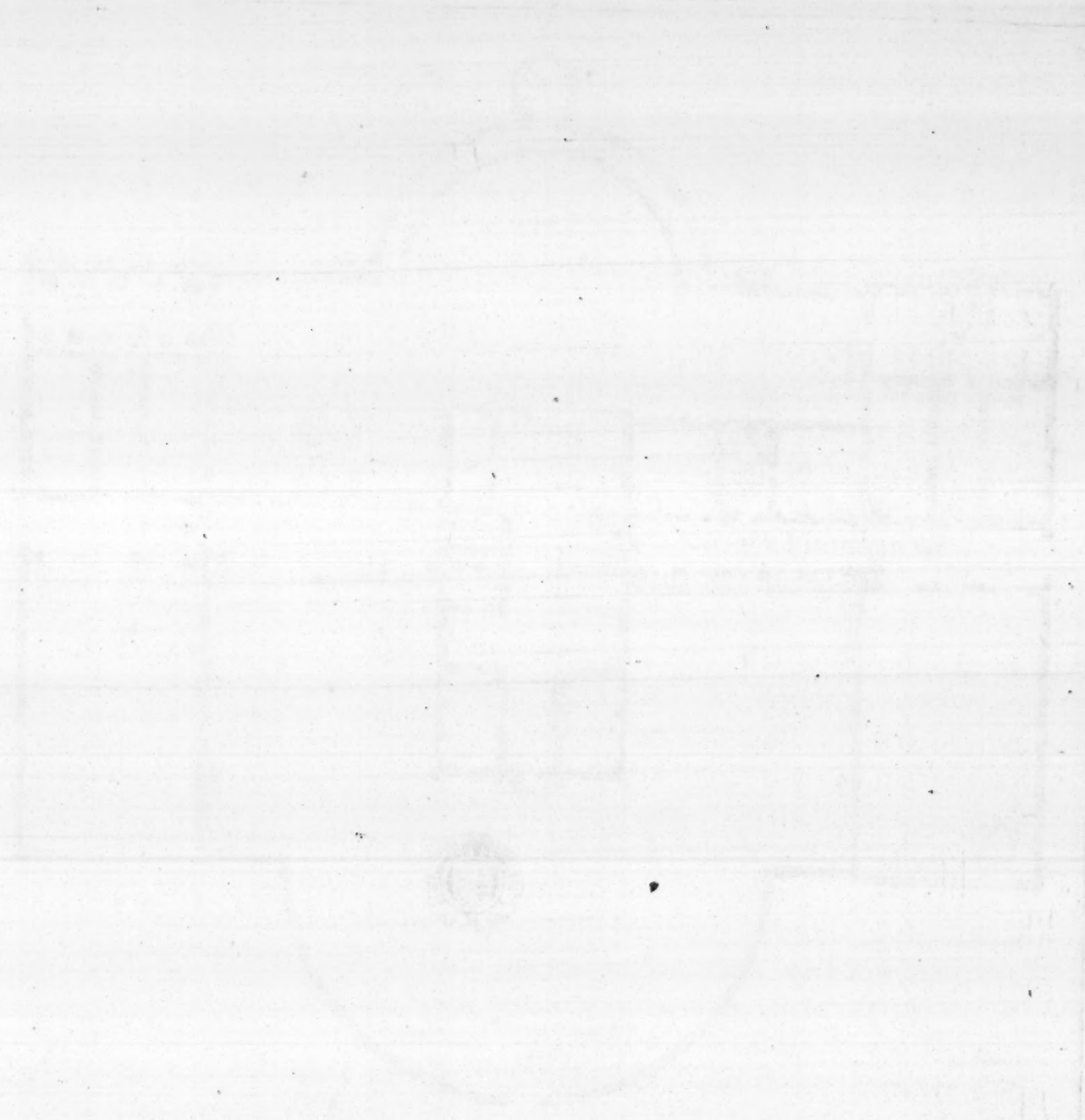
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\* Plate XXXVI. † Plate XXXVII.

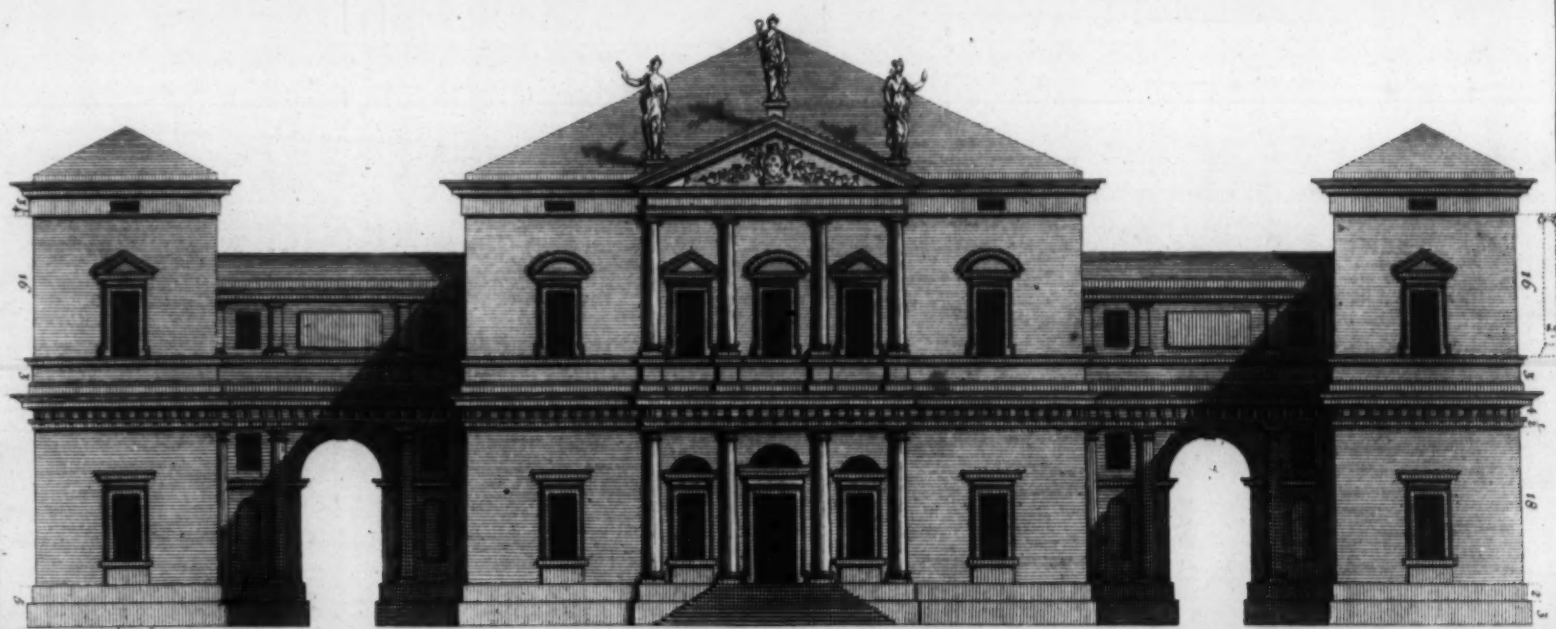
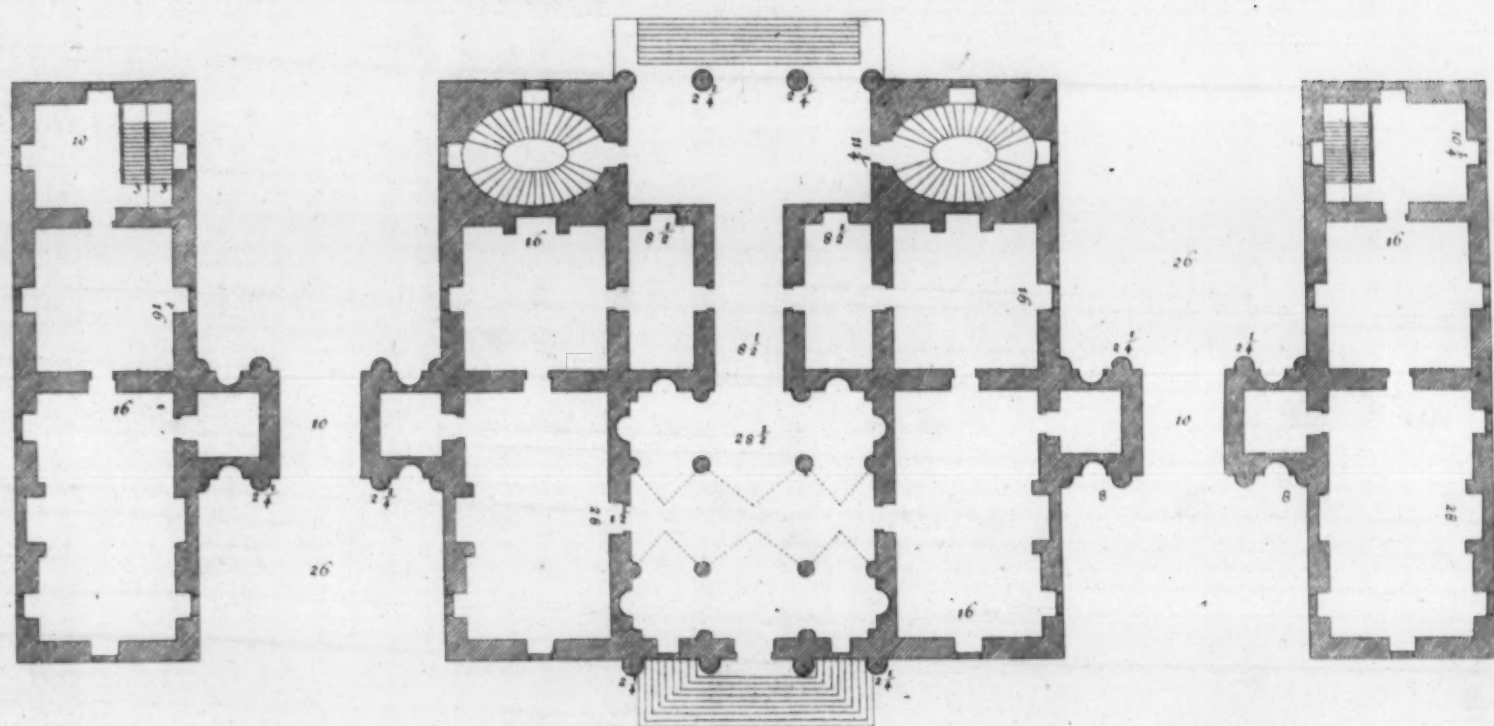










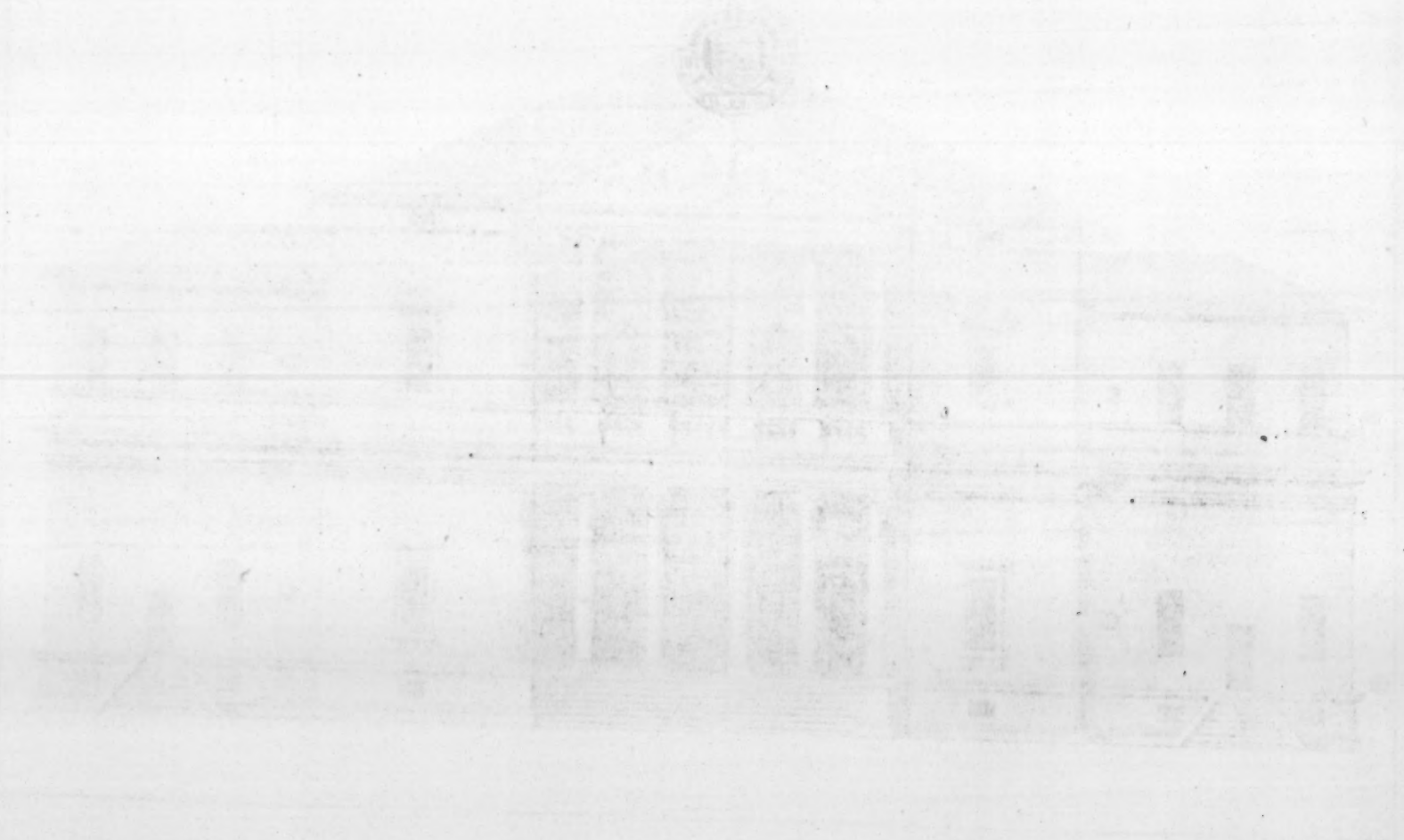




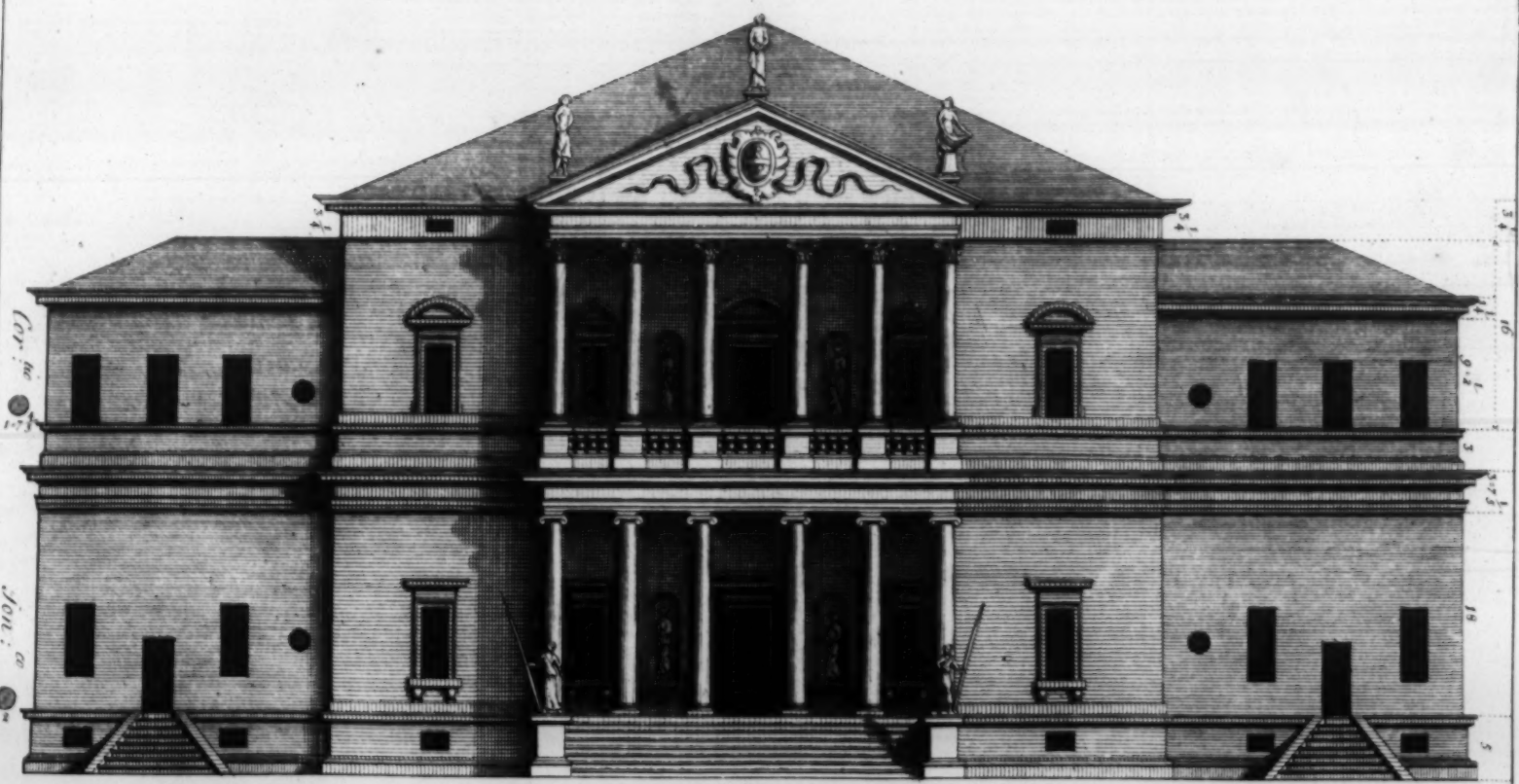
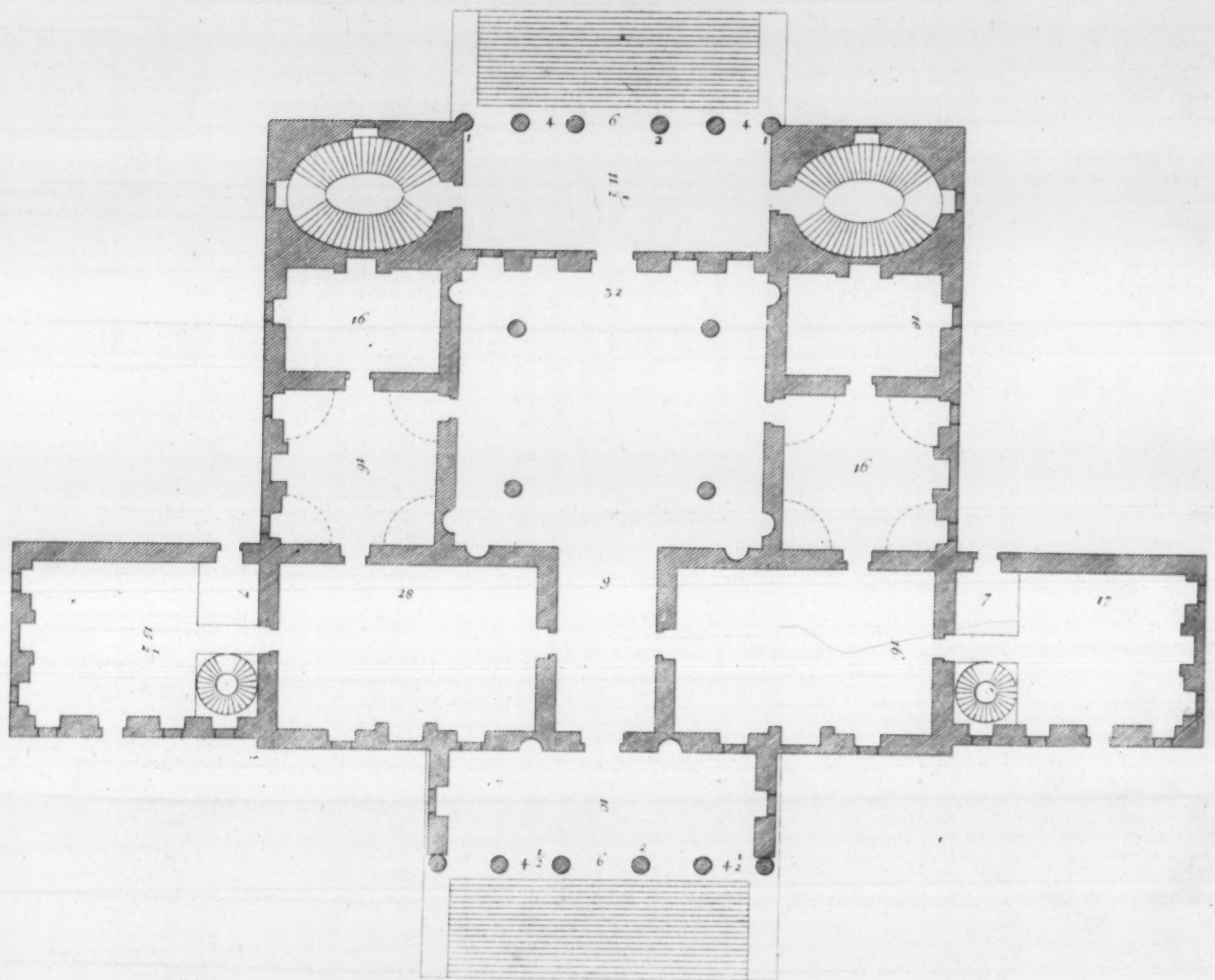




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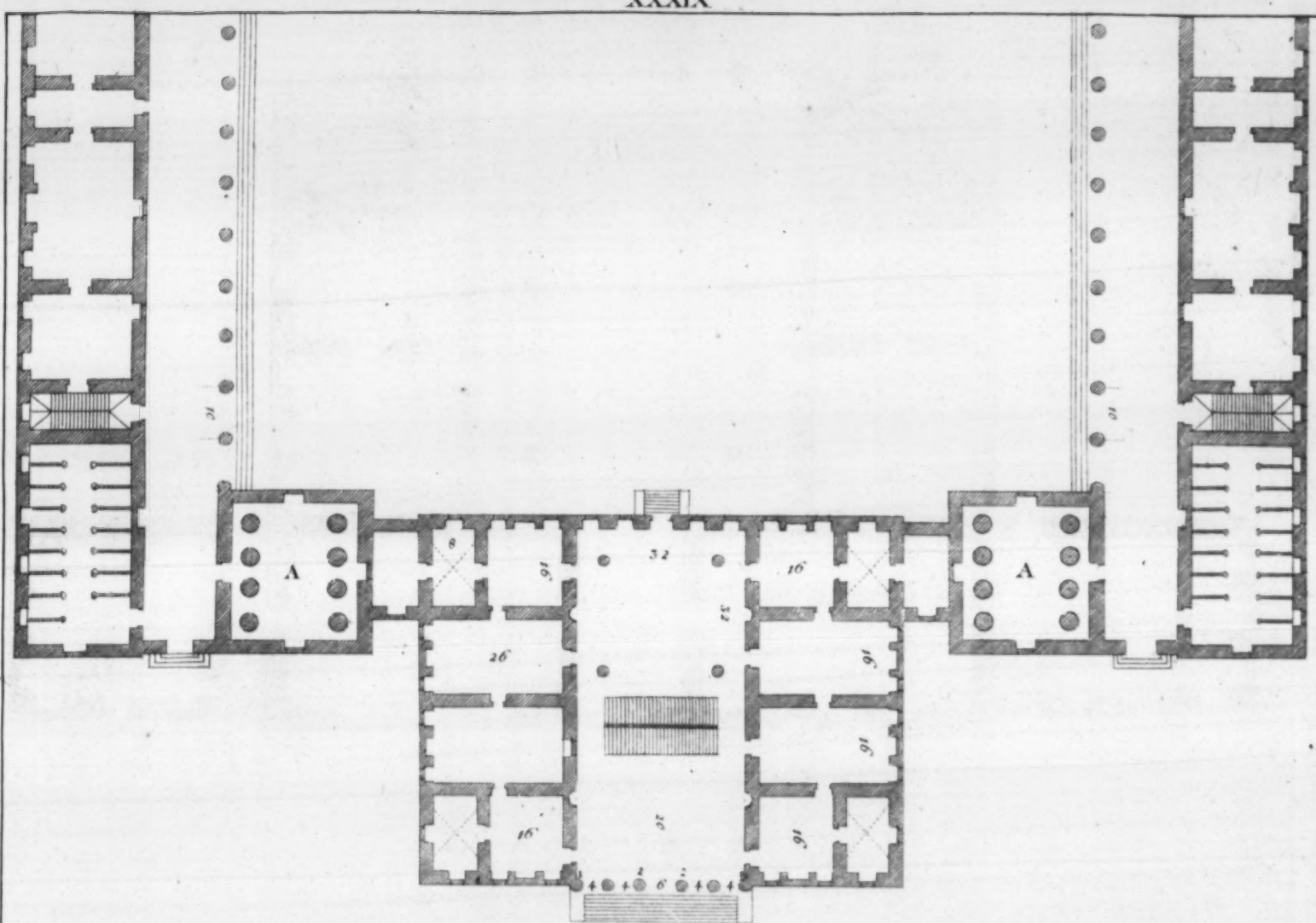






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that the height of the Arch is much finer and surer with them. The four Niches, which you perceive there have each a Statue, representing the four seasons of the Year, done by *Alessandro Vittoria*, an excellent Sculptor. The first Order of Columns is *Dorick*, and the second *Ionick*. The upper Rooms are ceil'd. The height of the Hall reaches as far as the roof. On the Flanks of this House, there are two wings, join'd to the House by two passages, which lead into the Kitchen and to some other Offices; in the middle of each of them there are two arch'd Gates which open into two Streets.

The following draught \* is the House of the magnificent Lord *George Cornaro* in *Piombino*, a place of *Castle-franco*. The first Order of the Portico is *Ionick*. The stair-case is as far as well can be into the House, that it may be less expos'd to heat or cold. The wings of the Hall, wherein you see the Niches, have the third part of their own length in breadth; and the Pillars range with the last but one of the Porticos exactly, and are as distant from one another as they are high. The great Rooms are a square and three quarters long; the height of the Arches is according to our first method of the height of Arches. The second-size Rooms are square, and a third higher than broad. The Arches are cross-grinded. Over the Closets are *Mezaninos*, or half Stories. The upper Portico is of the *Corinthian* Order: its Pillars are a fifth part less than the lower ones. The Chambers are ceil'd, and above them are some *Mezaninos*. The Kitchen, and places belonging to it, are on one side; and on the other are places for the Servants.

The Building of the following draught † belongs to the most illustrious Knight *Leonardo Mocenico*, in a place call'd *Morocco*, on the road from *Venice* to *Trevigi*. The Cellars are level with the ground, and above them are the Granaries on the one side, as the Servants Lodgings are on the other. Over these are the Master's Rooms, forming four Apartments. The Arches of the greatest are one and twenty foot high, and are made of Canes, that they may be the less heavy. Those of the lesser ones are as high as those of the largest; but those of the Closets are only 17 foot high, and are crossed. The Gallery of the first story is *Ionick*. In the lower Hall there are four Columns, which make the height and breadth to be proportionable. The second Order of the Portico is *Corinthian*, and its *Poggio*, or Pedestal, is two foot and three quarters high. The stair-cases are in the middle,

\* Plate XXXVIII.

† Plate XXXIX.




separating the Hall from the Vestibule: both Stairs are opposite the one to the other, to the end that People may go up and come down both ways, which makes them very fine and convenient, besides that they are light enough. On the wings of this Building are the Wine-presses (*mark'd on the Plan A*) with the Stables, Galleries, and such like places fit for a Country Family.

At *Fanzolo* in the *Trivigian*, within three Miles of *Castel-franco*, may be seen the House of the magnificent Lord *Leonardo Emo*, built according to the following draught\*. The Cellars, Granaries, Stables, and other places for a *Villa*, are on each side of the Master's House; at each end of which there is a Pigeon-house, which, besides the ornament to the place, brings likewise profit to the Owner. People may go under shelter every where about this House, which is one of the most considerable conveniencies that ought to be desir'd in a Country-house, as we have already observ'd. On the back of this Building there is a square Garden, which contains fourscore *Trivigian Acres*; in the midst of which runs a little River, which renders the situation very fine and agreeable. This House is adorn'd with several pieces of painting done by *Battista Venetiano*.



## CHAP. XV.

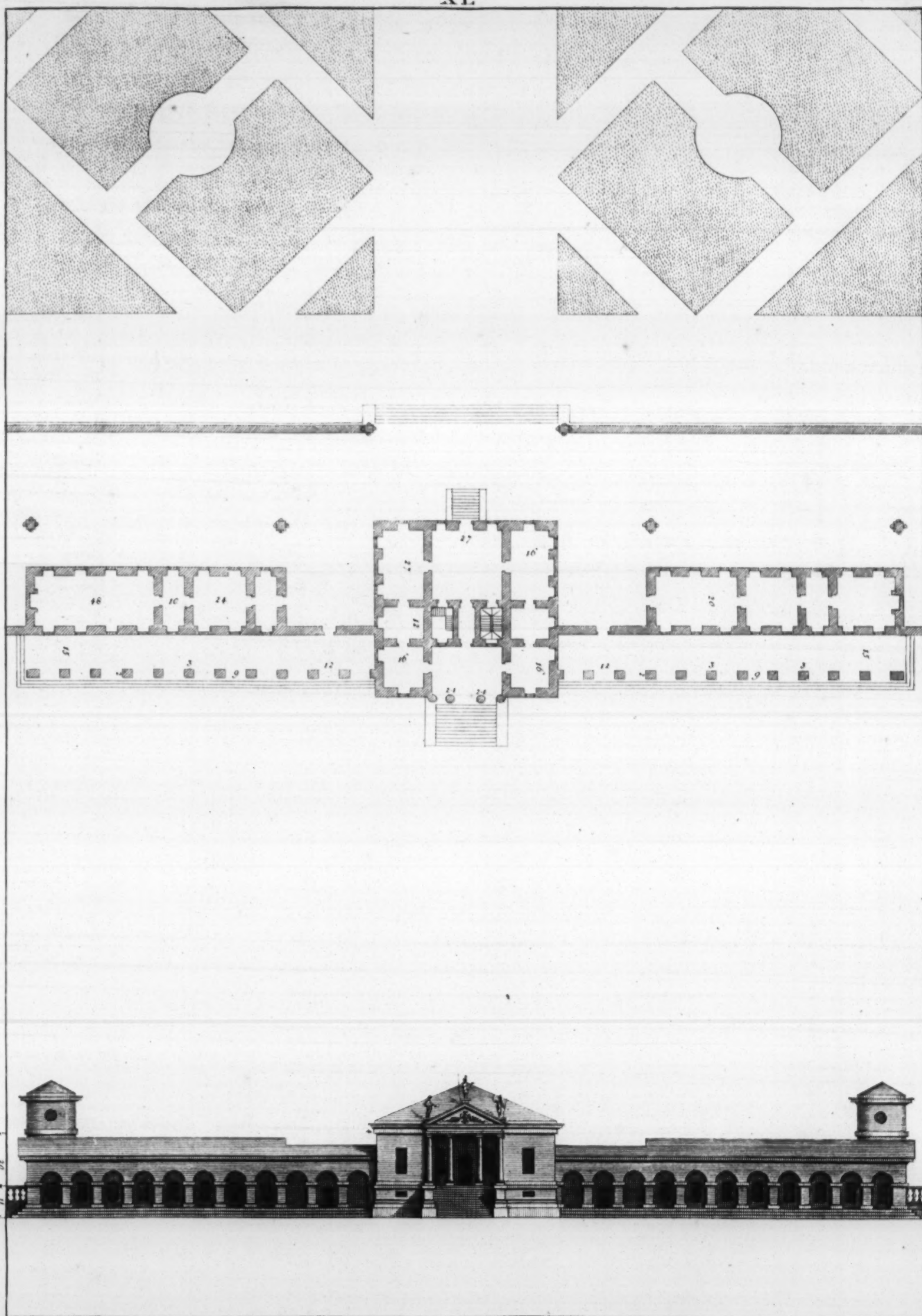
### *The Draughts of some Noblemen's Seats on the Terra Firma.*

N a place of the *Vicentine*, call'd *Final*, is the following House †, which belongs to the Lord *Biagio Sarraceno*. The floor of the Rooms is rais'd five foot from the ground. The great Chambers are a square and five eighths long, their height being equal to their breadth, and are all ceil'd. This height is also continu'd in the Hall. The Closets near the Galleries are arch'd: the height of the Arches is equal to that of the Rooms. The Cellars are below, and the Granaries above, being of the same extent with the whole House. The Kitchens are without, but so near that they are convenient enough: all the other places, necessary to a Country-house, are on the two sides of the Building.

The draughts that follow \*\* are of the House of Signior *Giralamo Ragona*, a *Vicentine Gentleman*, who built it at one of his

\* Plate XL    † Plate XLI.    \*\* Plate XLII.

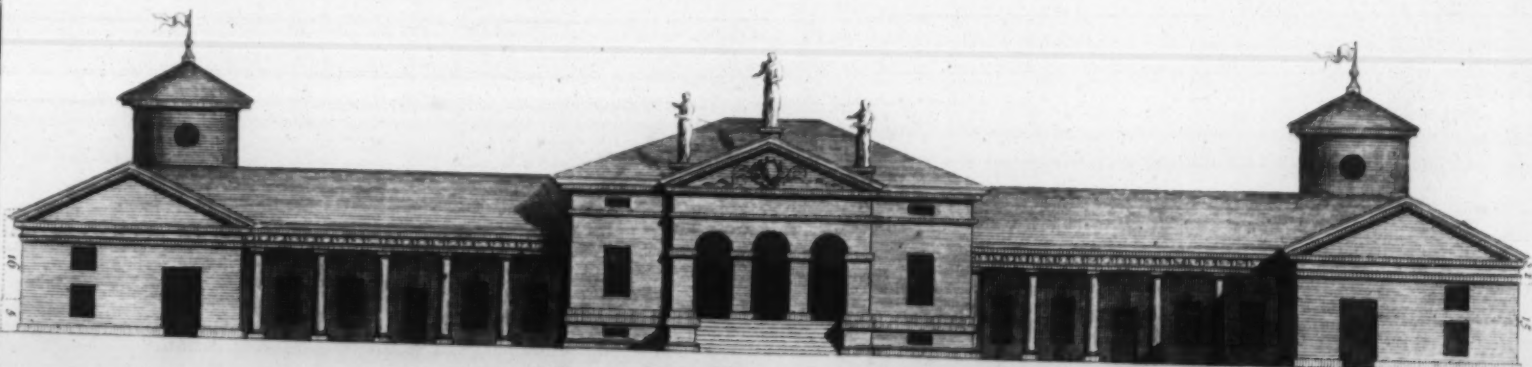
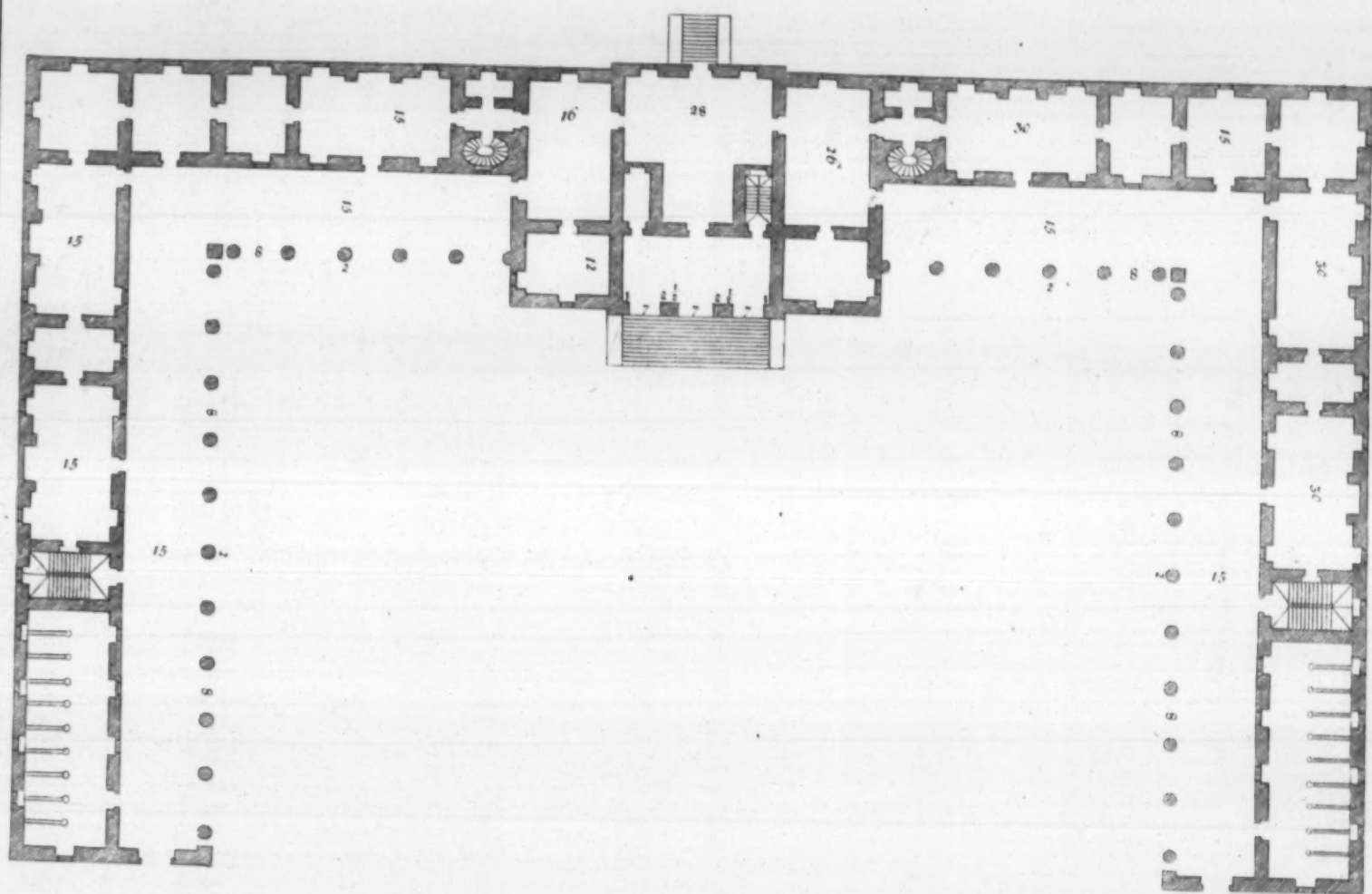










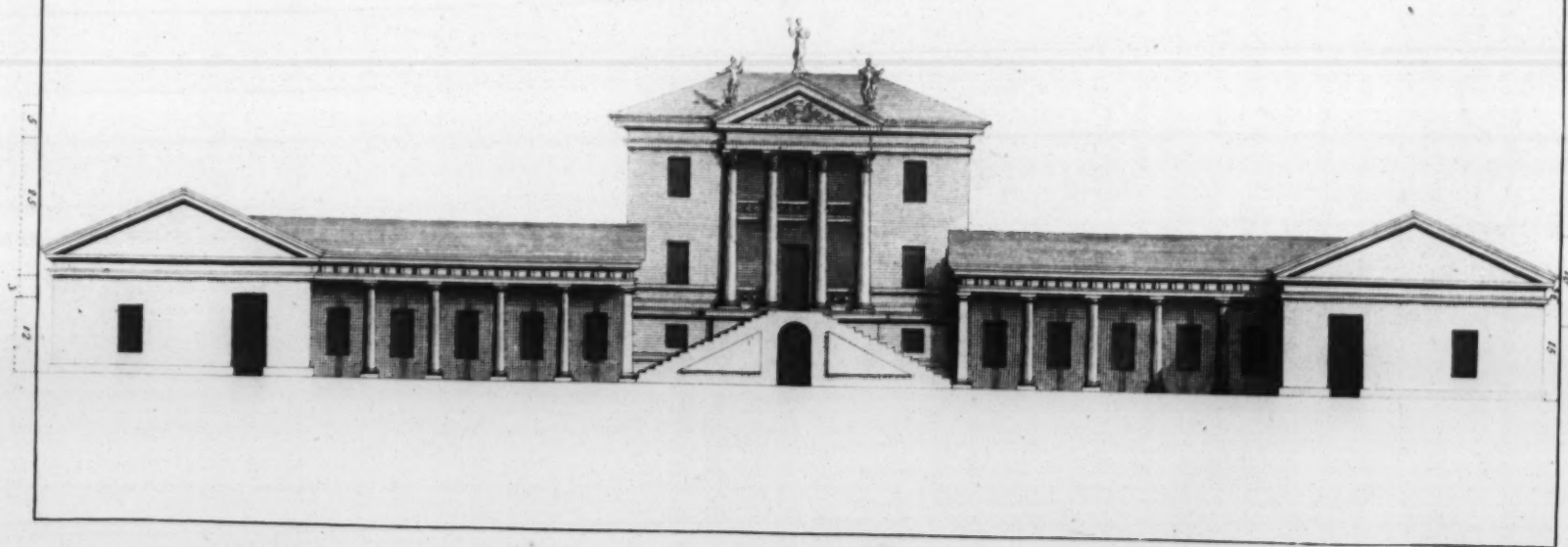


*3.66e Sulp.*



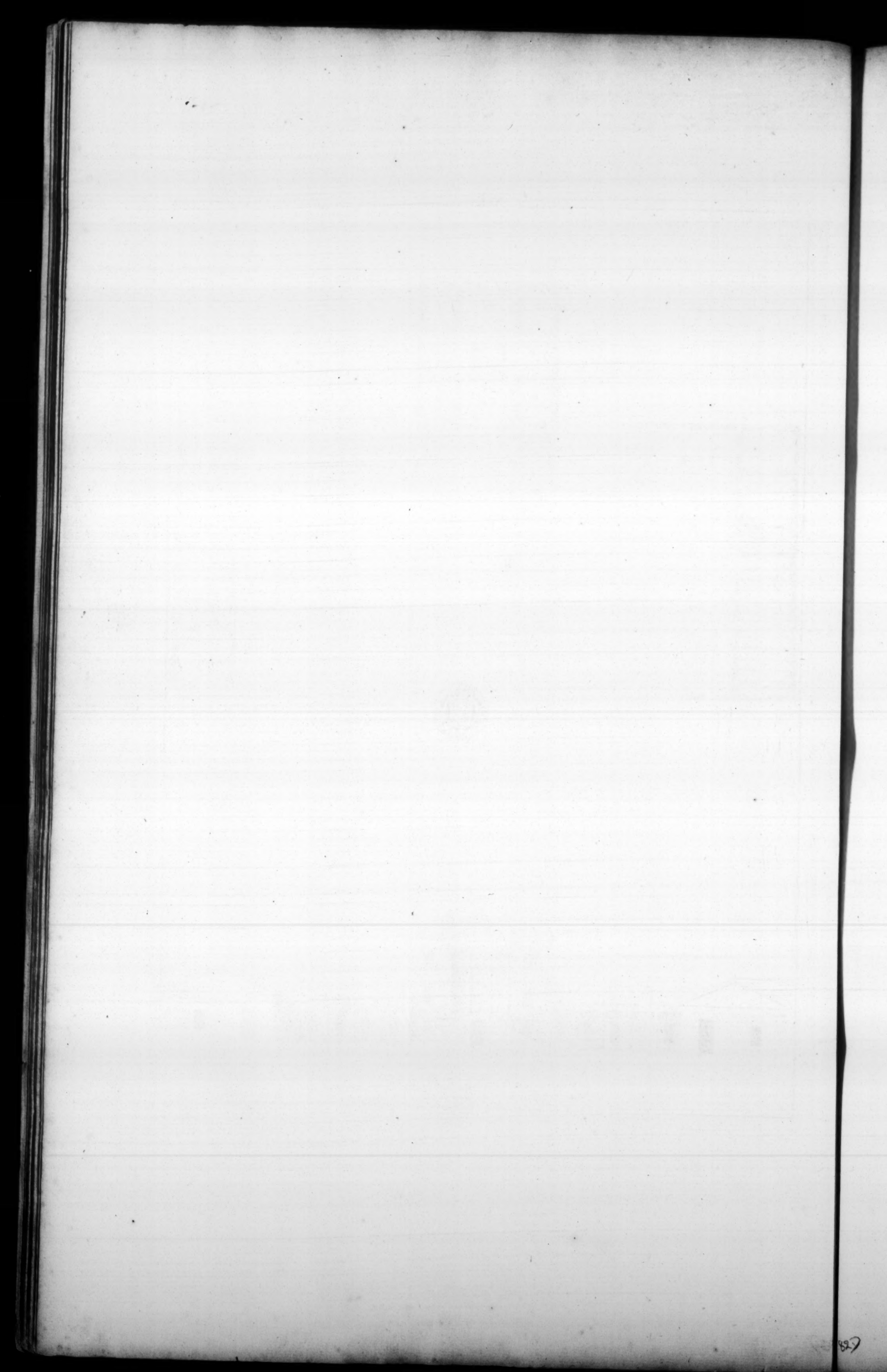






J. Harris fecit

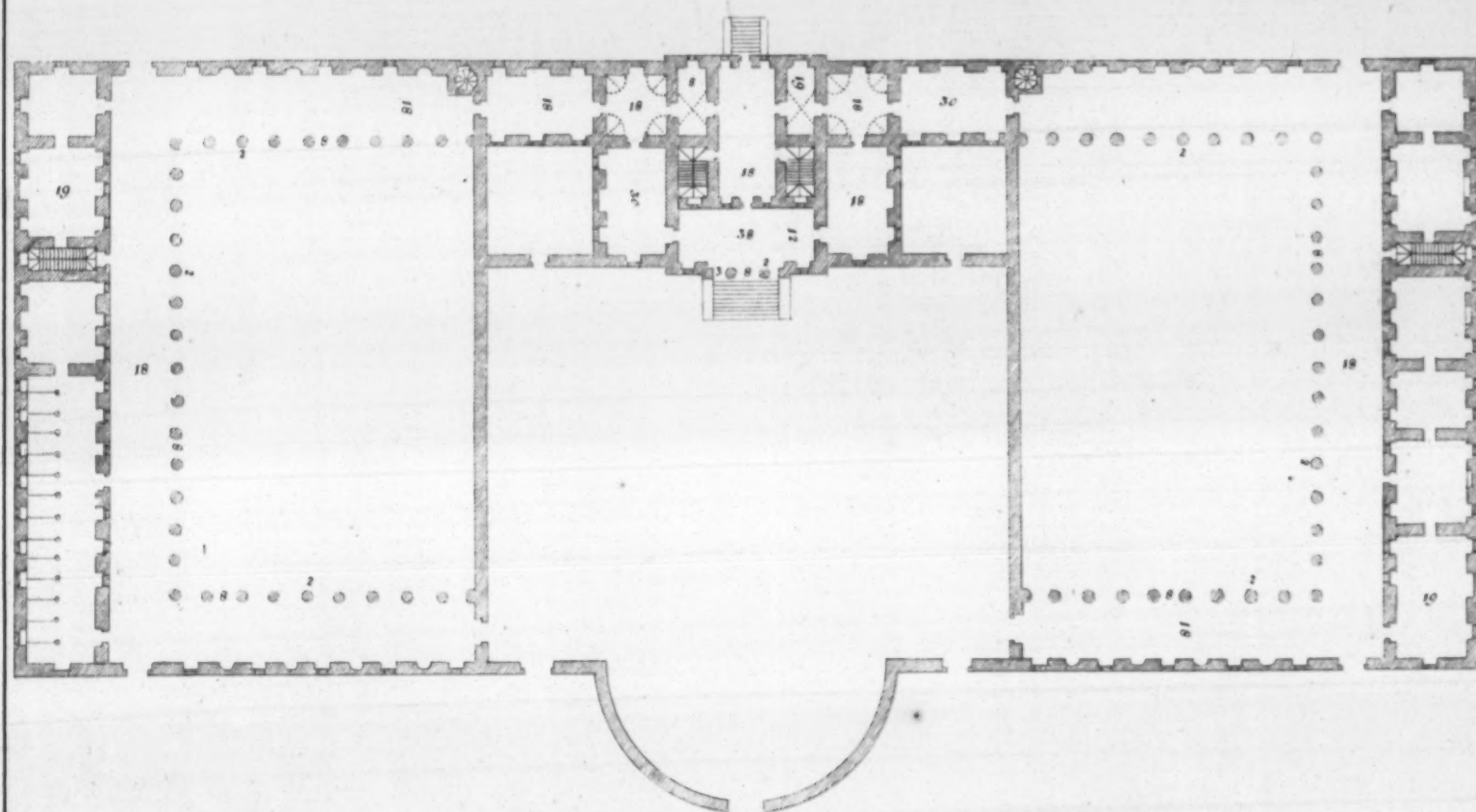










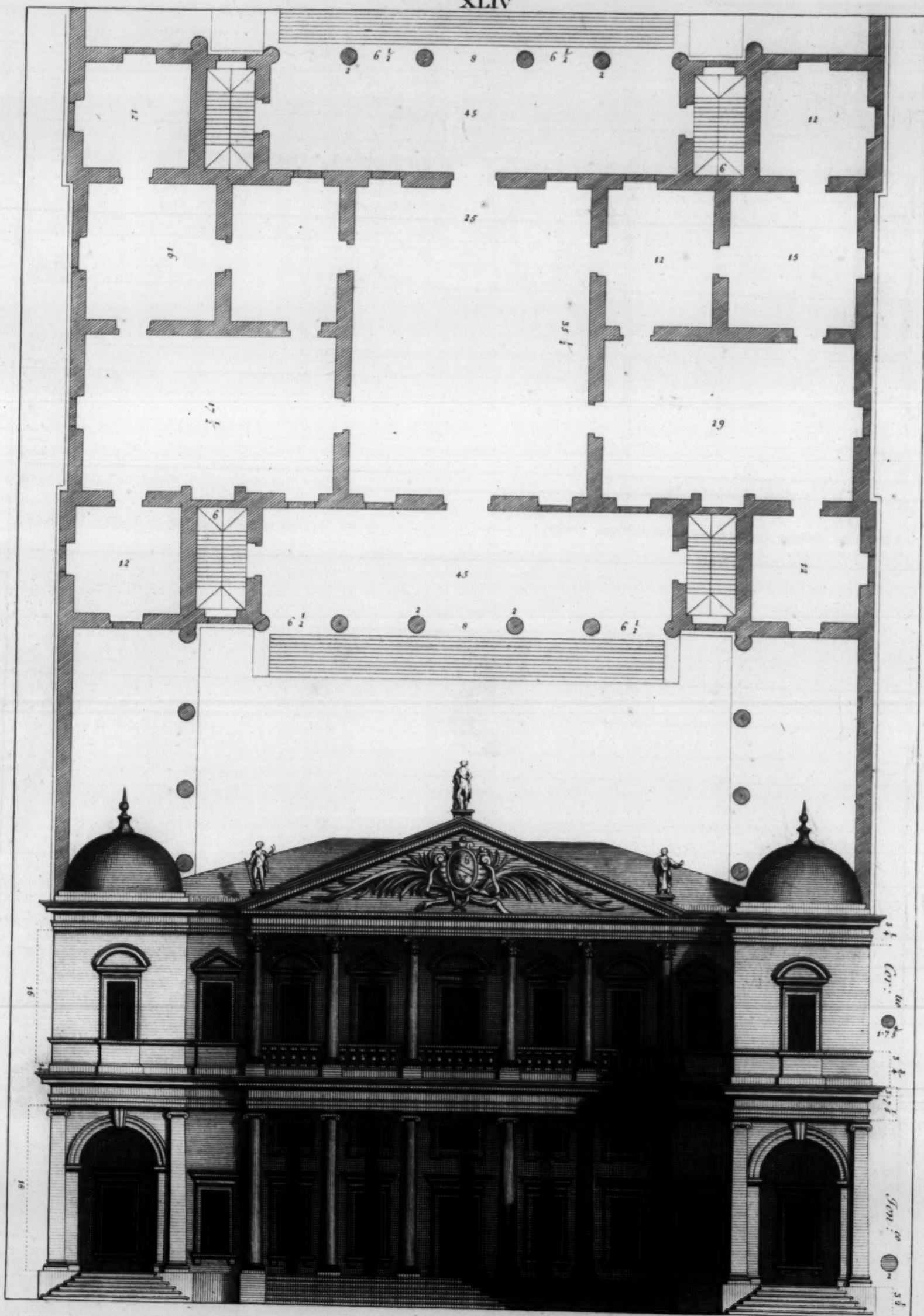


J. C. de Gulp

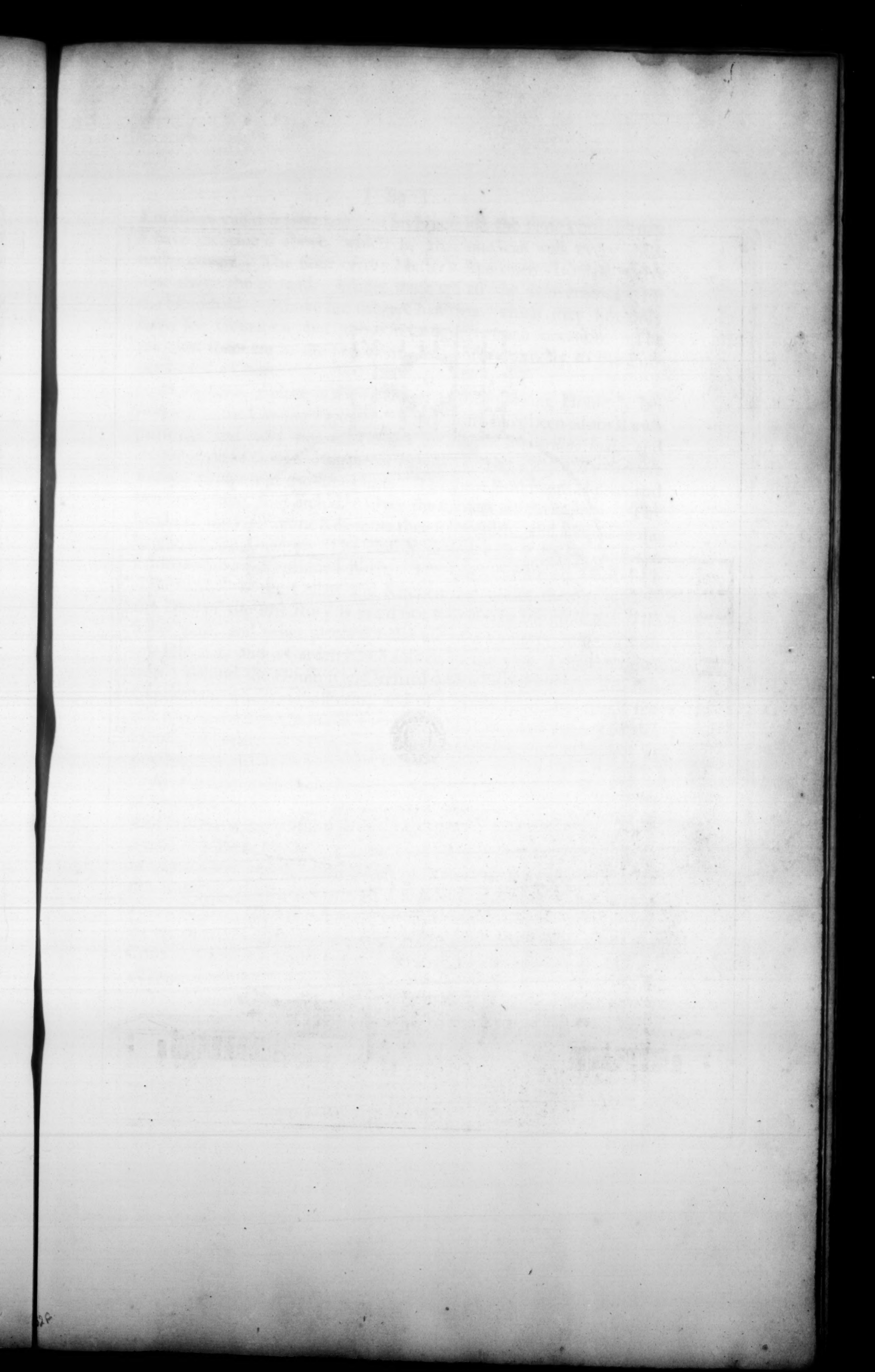




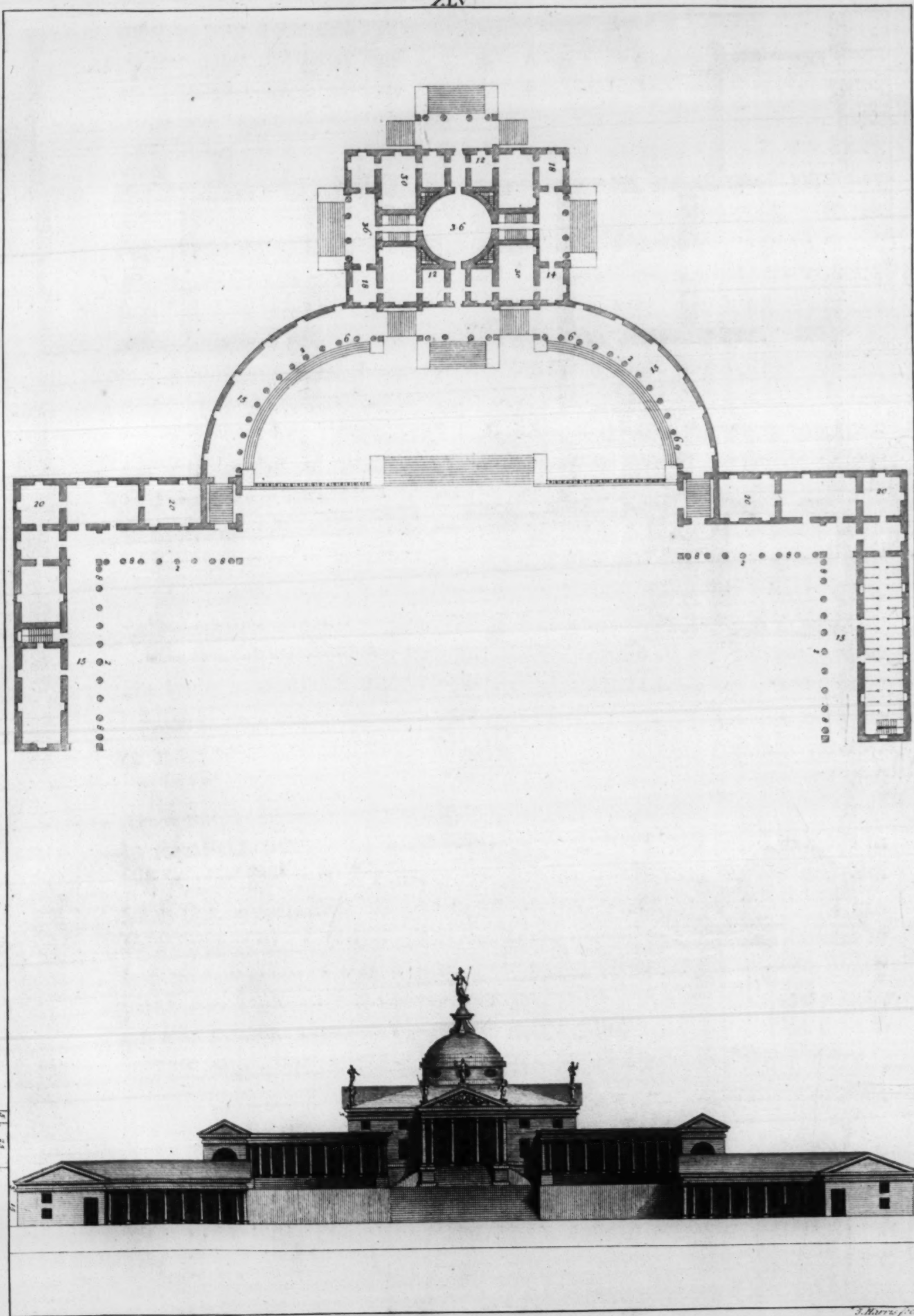














Lordships call'd *le Ghizzole*. This House has the same conveniency I have mention'd above, which is, that one can walk every-where under covert. The floor of the Master's Apartments is rais'd twelve foot above the ground. Under these are all the conveniencies for the Household. Above are other Chambers, which may not only serve for Granaries, but also for Lodgings upon occasion. The principal stairs are in the fore-front, and answer directly to the Porticos of the Court.

At *Pogliana*, a place in the *Vicentine*, is the following House \*, belonging to the Cavalier *Pogliana*. The Rooms have been adorn'd with paintings and very fine stuccatures by *Messer Bernardino India* and *Messer Anselmo Canera*, Painters of *Verona*, and by *Messer Bartholomeo Rodolfi*, Sculptor of the same place. The great Rooms are a square and two thirds long, and arch'd. Over the Closets are *Mezaninos*. The height of the Hall is one half more than its breadth, and is equal to the height of the Gallery. The Hall is arch'd with a *Fascia*, and the Portico with a cross-grinded Arch. The Granaries are above all these Apartments, as the Cellars and Kitchen are under them; because the floor of the first story is rais'd five foot above the ground. The lower yard, and other places for the use of a Country-house, are on one side of it, and a Garden which answers to the yard is on the other side. Behind the House is an Orchard and a Fish-pond: so that this Gentleman, who is magnificent, and of a noble spirit, has spar'd nothing which he thought might bring ornament or conveniency to this House, in order to make it as fine, delightful, and compleat as possible.

At *Liziera*, a place near *Vicenza*, Signior *Gio. Francesco Valmarana*, of blessed Memory, built the following House †. The Galleries or Porticos are *Ionick*; the Columns are upon a square base which surrounds the whole House. To the level of this basement is the floor of the Gallery and Rooms, which are all ceil'd. At the Angles of this Building there are four arch'd Towers; the Hall is also arch'd with a *Fascia*. This House has two Court-yards, the one forwards for the use of the Master, and the other backwards, where they thresh the Corn. About this Court are coverts, and all other places necessary to a Country-house.

The Counts *Francesco*, and *Ludovico de Trissini*, Brothers, began the Building of the following \*\* Draught at *Meledo*, a place in the *Vicentine*. Its situation is very fine, being on a Hill, that's wash'd by a little River, in the midst of a spacious Plain, and on a well-frequented

\* Plate XLIII.

† Plate XLIV.

\*\* Plate XLV.



Road. On the top of the Hill there is to be a Hall encompass'd with Rooms ; but rais'd so high that it may receive its Light above them. This Hall has some demy-pillars, which support a Corridor, to which People enter by the upper Chambers, which serve but for the *Mezaninos*, being only seven foot high. Under the floor of the first Chambers are the Kitchens, Pantries, and such like places. And because every front of the House has a very fine prospect, there are made four Porticos or Galleries to them of the *Corinthian* Order ; above the pediments of which one sees the Cupolo of the Hall. The Galleries that come round it look extraordinary well. The Hay-lofts, Cellars, Stables, Granaries, the Farmer's Lodging, and other Family conveniencies are lower. The columns of the Porticos are of the *Tuscan* Order ; and at the corners of the Court near the River are two Dove-houses.

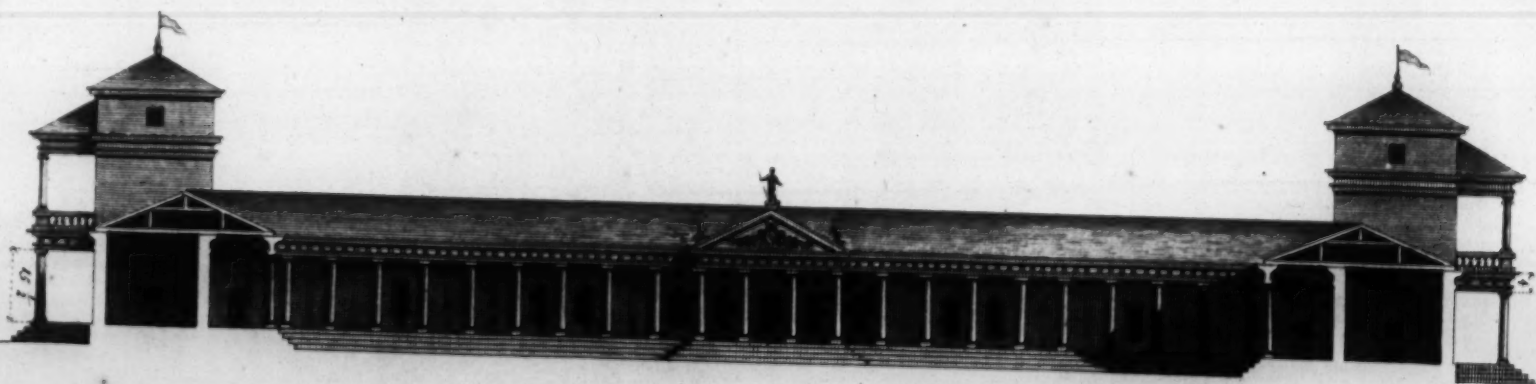
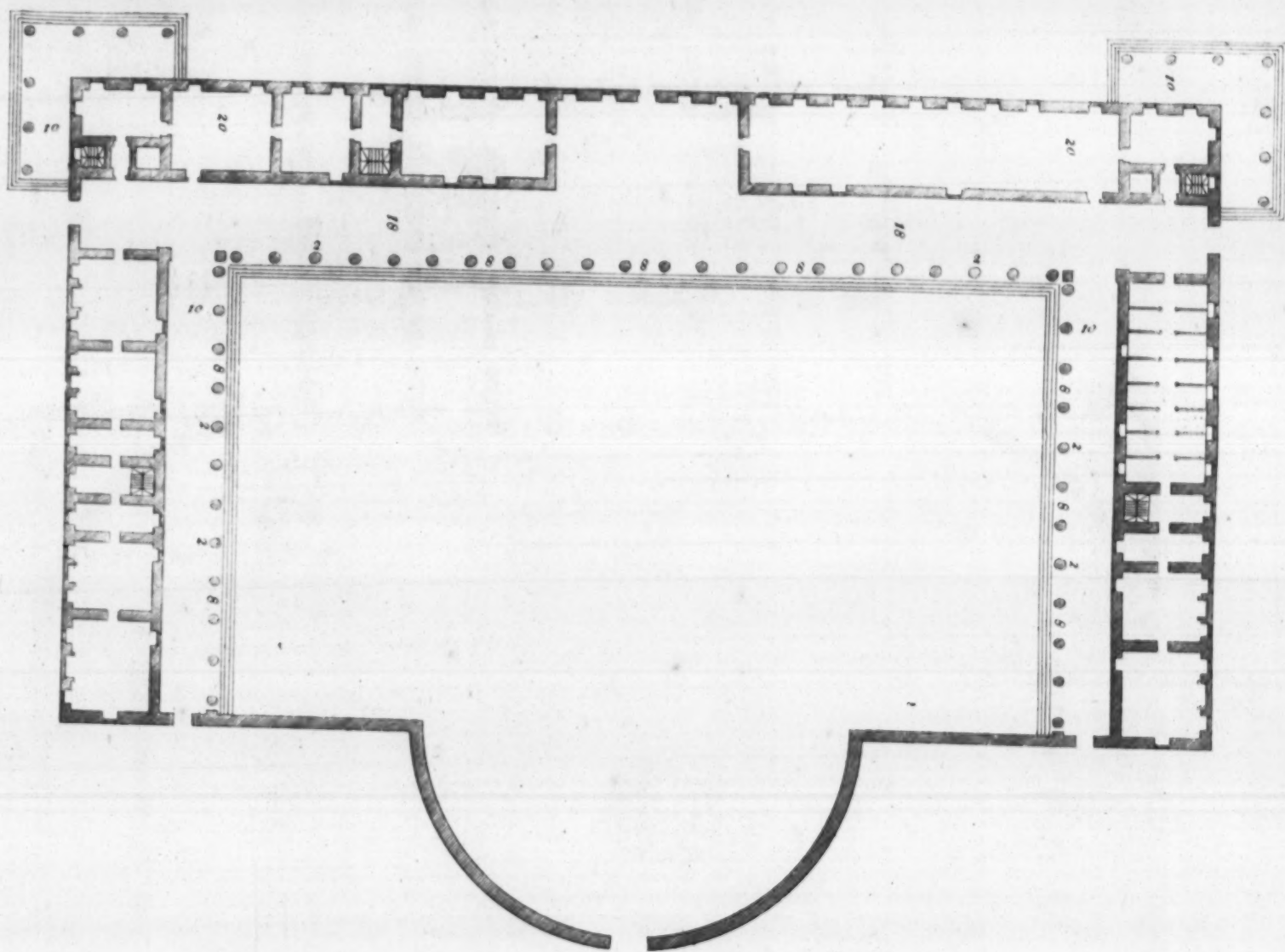
This Building \* is at *Campiglia*, a place of the *Vicentine*, and belongs to Signor *Marso Repeta*, who finish'd it according to the design of the late Signor *Francesco* his Father of blessed Memory. The Pillars of the Porticos are of the *Dorick* Order ; the intercolumnation is four diameters of a column. In the two remotest corners of the Roof, where one sees the Galleries, without the main body of the House, there are two Dove-houses and Galleries. On the side towards the Stables are divers Chambers, every one dedicated to some particular Virtue, as one to Justice, another to Chastity, and others to other Virtues, with Elogiums and Pictures appropriated to the subject. Part of these were done by *Battista Maganza*, a *Vicentine* Painter, who is also an excellent Poet, and who has done all this designedly, that as the Gentleman receives those who visit him most courteously, so he may lodge every one of his Guests and Friends in the Apartment of that Virtue to which he thinks them most inclined. In this Building one may go every where conveniently under Piazzas. And since the Farm-house is of the same Order with that of the Master's it self, all that this last wants in greatness by not being more costly than the other, is sufficiently made up to the former, by being equal both in ornament and symmetry.

The following House † belongs to the two Brothers, the Counts *Edward* and *Theodore de Thieni*. It stands in a place call'd *Cigogna*, where Count *Francis* their Father began to build it. The Hall is in the middle of the House, and round it are some *Ionick* Pillars, which support a Corridor which is level with the floor of the upper Rooms. The Arch of this Hall reaches to the roof.

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\* Plate XLVI. † Plate XLVII.





*J. Harris fecit*



THE UNIVERSITY OF CHICAGO

LIBRARY

1850-1859

1860-1869

1870-1879

1880-1889

1890-1899

1900-1909

1910-1919

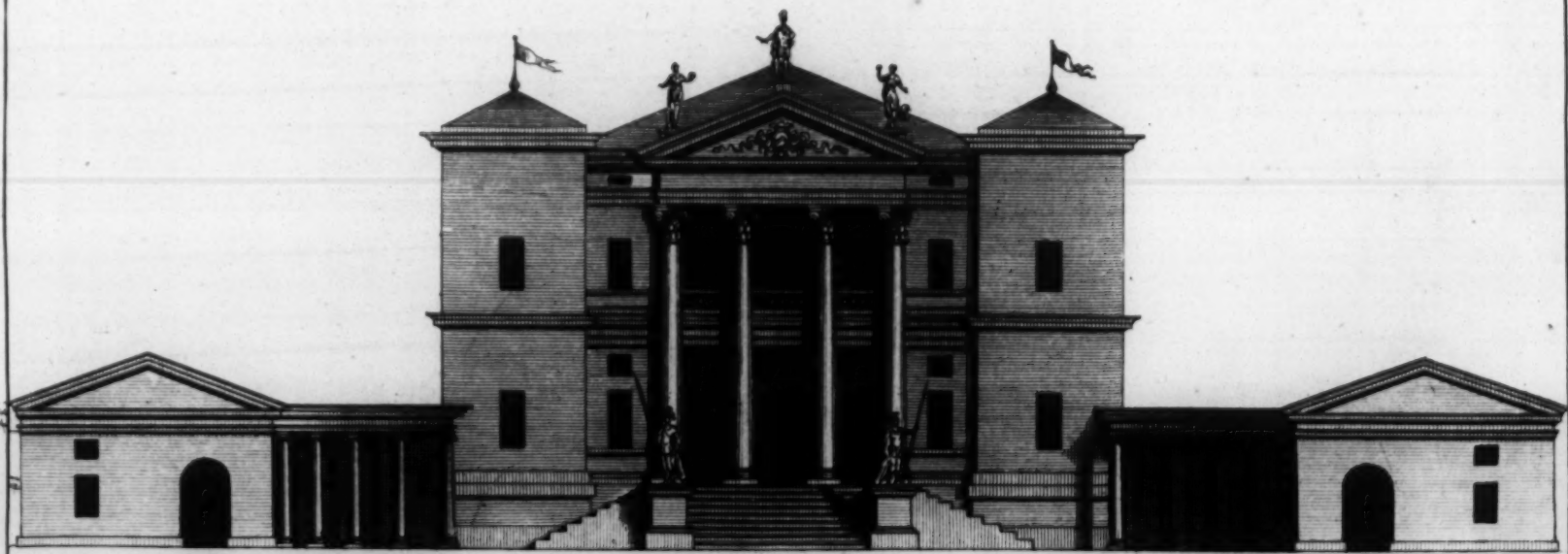
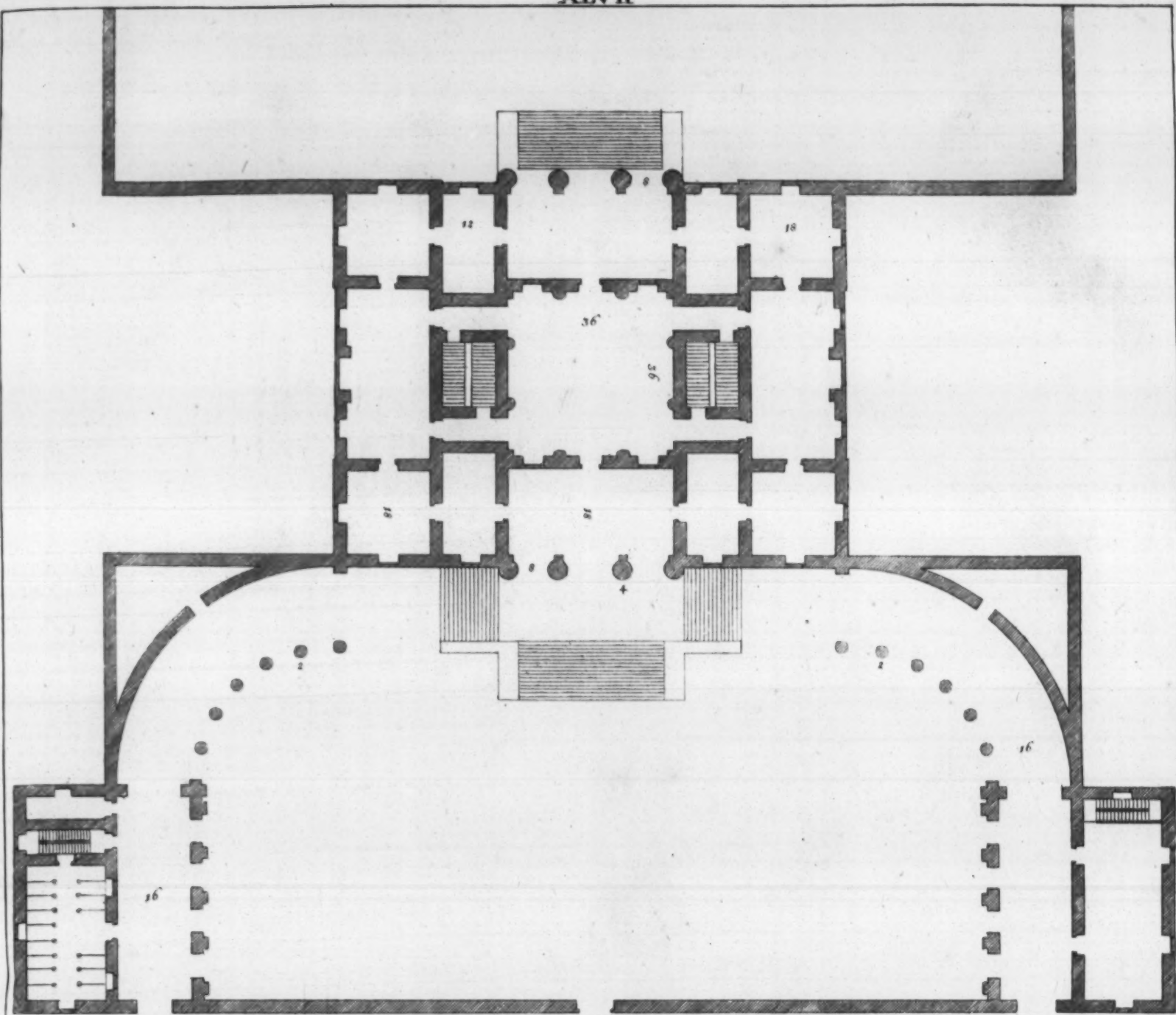
1920-1929

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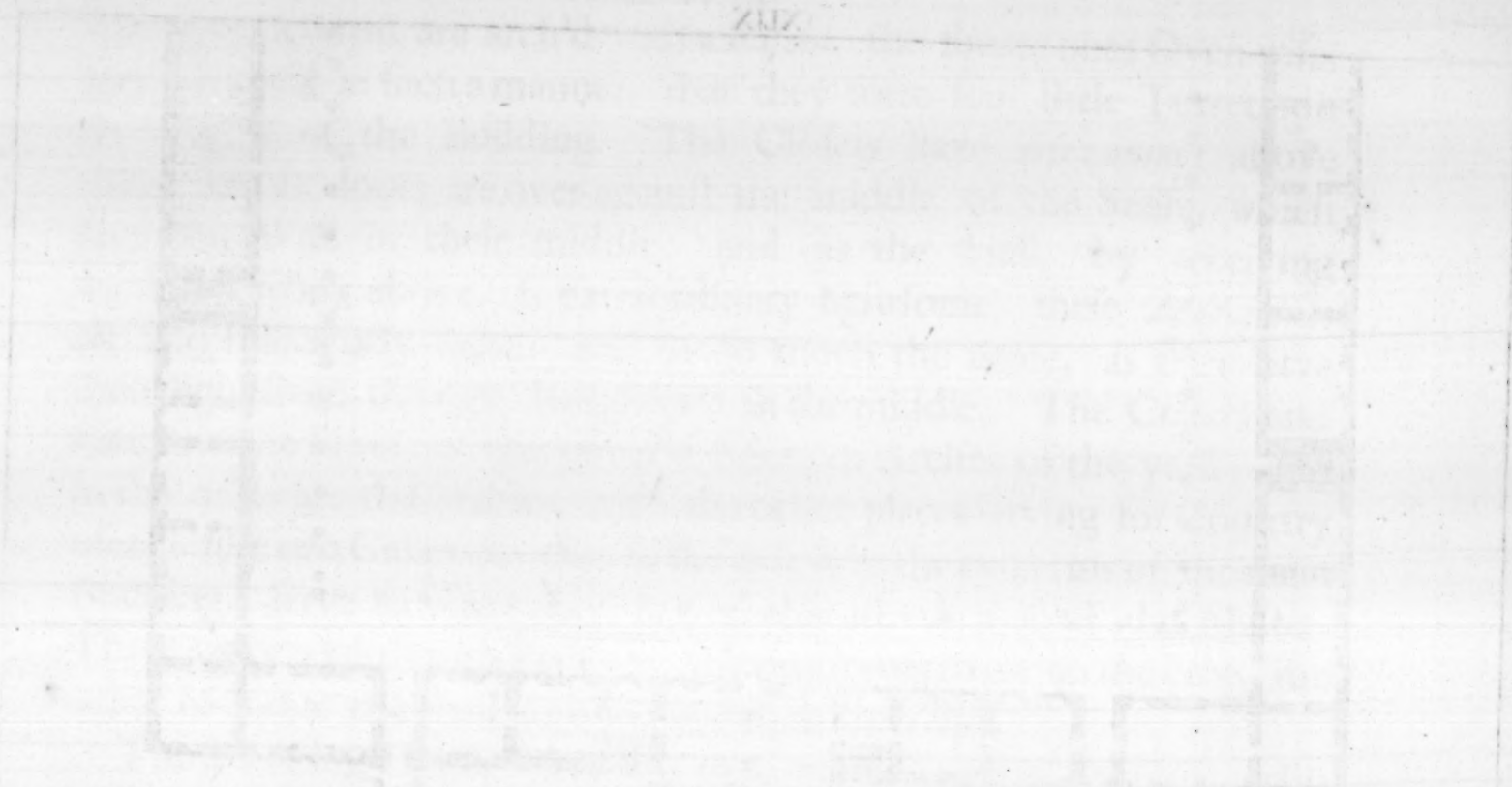




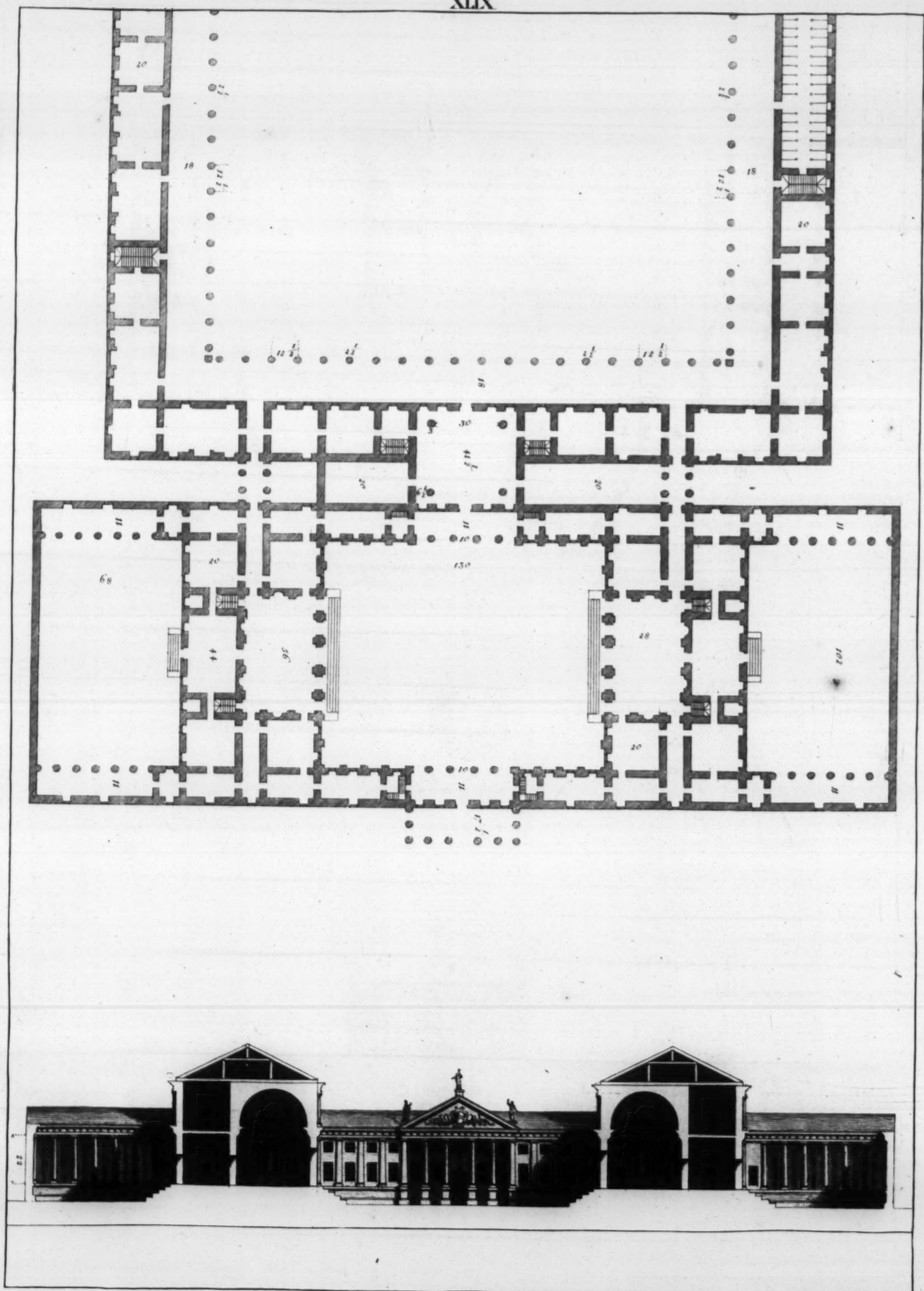




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J. Harris fecit



The great Rooms are arch'd with a *Fascia*, the square ones Oven-wise, and are rais'd in such a manner, that they form four little Turrets on the angles of the Building. The Closets have *Mezaninos* above them, whose doors are over-against the middle of the Stairs, which have no Wall in their middle: and as the Hall, by receiving its light from above, is extraordinary lightsome, these *Mezaninos* are also sufficiently light; and by so much the more, as they have their light from the top, being open in the middle. The Cellars and Granaries are in one of the cover'd sides, or Arches of the yard; and in the other are the Stables, with the other places serving for Country uses. The two Galleries, that make as it were the two arms of the main Building, serve to unite the Farmer's House to that of the Master. There are two yards with Porticos, the one serves to lay up the crop, the other to lodge the Husbandmen and their Servants.

The following House \* belongs to Count *Giacomo Angarano*, who built it in his Lordship of *Angarano*, a place in the *Vicentine*. On both sides of the Court are the Cellars, the Granaries, the Wine-presses, the Farmer's House, the Stables, with the Dove-house; and beyond there is on one side a Court or Yard for the Country necessities, and on the other side a Garden. The Master's House is in the middle, all the first story of it being arch'd, and the second ceil'd. The Closets, both above and below, have *Mezaninos*. The *Brenta*, a River very plentiful of excellent Fish, runs near this Building. The place is famous for its delicious Wines and Fruits, but more especially for the courtesy of its Lord.

The following draughts † are of Count *Ottavo Thieni's* House, in a place call'd *Quinto*. This Building was begun by Count *Marc Antonio* his Father, of happy Memory, and by Count *Adriano* his Uncle. The situation is very fine, for it has the *Tessina* on one side, and a pretty large branch of the same River on the other. This Palace has a Gallery before its Gate of the *Dorick* Order, thro which one passes into another Gallery; and from that into the Court, which has also two Galleries in its wings, at the end of which are all the Rooms and Apartments, of which some have been painted by *Giovanni Indemio* a *Vicentine*, and a very ingenious Man. Over against the Portico of the entry there is another Gallery exactly like it, which brings you to an *Atrium* with four Pillars, and strait forwards to a Court whose Porticos are of the *Dorick* Order. It serves for all the uses of the *Villa*. There is no principal stair-case, that has any proportion to the rest of the Building; because the upper part of this House

\* Plate XLVIII. † Plate XLIX.



serves only for Wardrobes, Stores, and Lodgings for the Servants.

At *Lonedo*, a place in the *Vicentine*, is the following House \*, belonging to Signor *Girolamo de Godi*. It is situated on a little Hill that has a very fine prospect, near a River that furnishes it with Fish. To render this situation proper for Country purposes, they have made yards and passages supported by Arches at a very considerable Expence. The Master's and Families Apartment is in the middle of the Building. The floor of the Chambers is rais'd thirteen foot from the level of the ground, and they are ceil'd. The Granaries are above; and below, under the raising of the thirteen foot, are the Cellars, Kitchens, places to make Wine, and other necessary conveniencies. The height of the Hall is to the very roof, and it has two rows of Windows. At each side of the House there are great yards with coverts, serving for Country uses. The House is painted with great nicety by Messer *Gualterio Padoano*, Messer *Battista del Moro* of *Verona*, and Messer *Battista Venetiano*: for this Gentleman having a mind to make his House as perfect as possible, and having himself no small judgment, spar'd no cost to get the most excellent Workmen and Artists of our time.

At *Santa Sophia*, a place within five Miles of *Verona*, is the following House †, which belongs to Count *Marc Antonio Sarego*. Its situation is on a very fine Hill of a most easy ascent, between two Vallies, from whence one sees a great part of the City. Round about are several other Hills very agreeable to the Eye, and abounding with excellent Waters, whereby the House and Garden are adorn'd with several admirable Fountains. By reason of its agreeableness, this place was formerly the delight of the Lords *de la Scala*; and we may also judge, by some old Ruins which are found there, that in the time of the antient *Romans* it was in great esteem. That part of this Building which serves for the Master's Apartment and his Family, has a Court wholly surrounded with Porticos. The Pillars are of the *Ionick* Order, and coulsly wrought, as seems to become a Country-house, to which nice and finish'd Works bears not so true a resemblance as plain and natural ones. These Pillars support the Cornice, which makes the Gutters that receive the Rain that falls from the top of the House; and behind are some pilasters under the Porticos, that bear the floors of the second story. In this same second story are two Halls over-against one another, the largeness of which may be seen in the draught \*\* by the lines that go cross each other, and

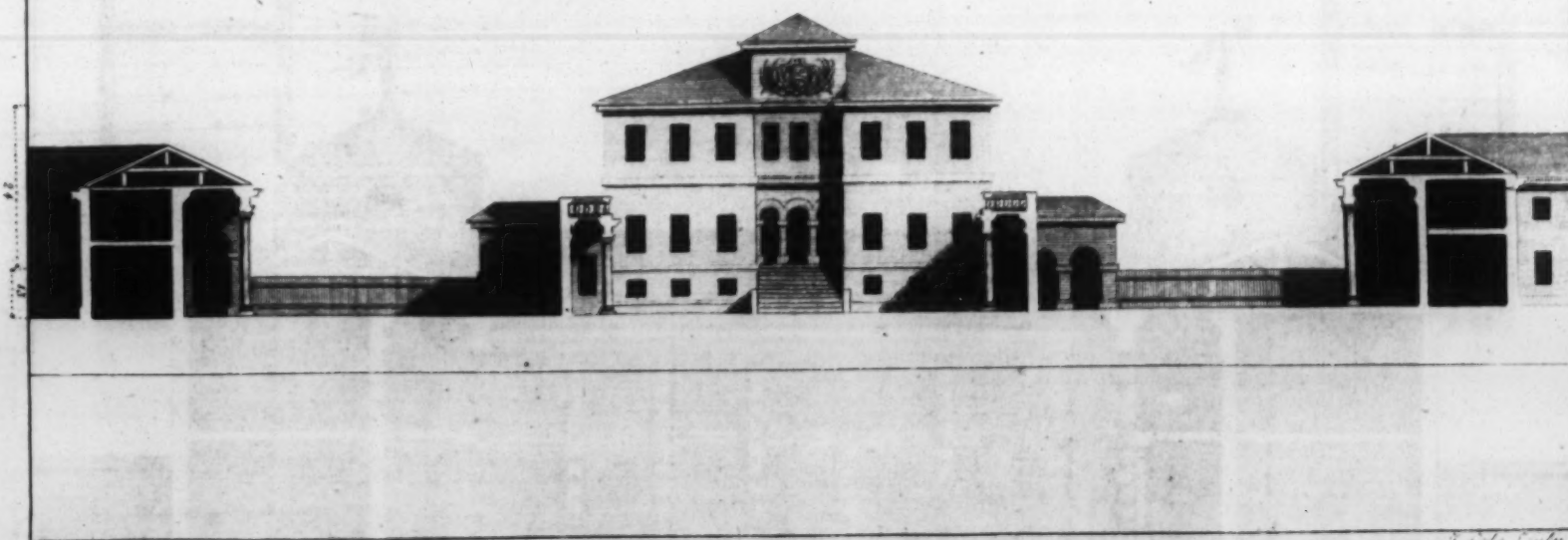
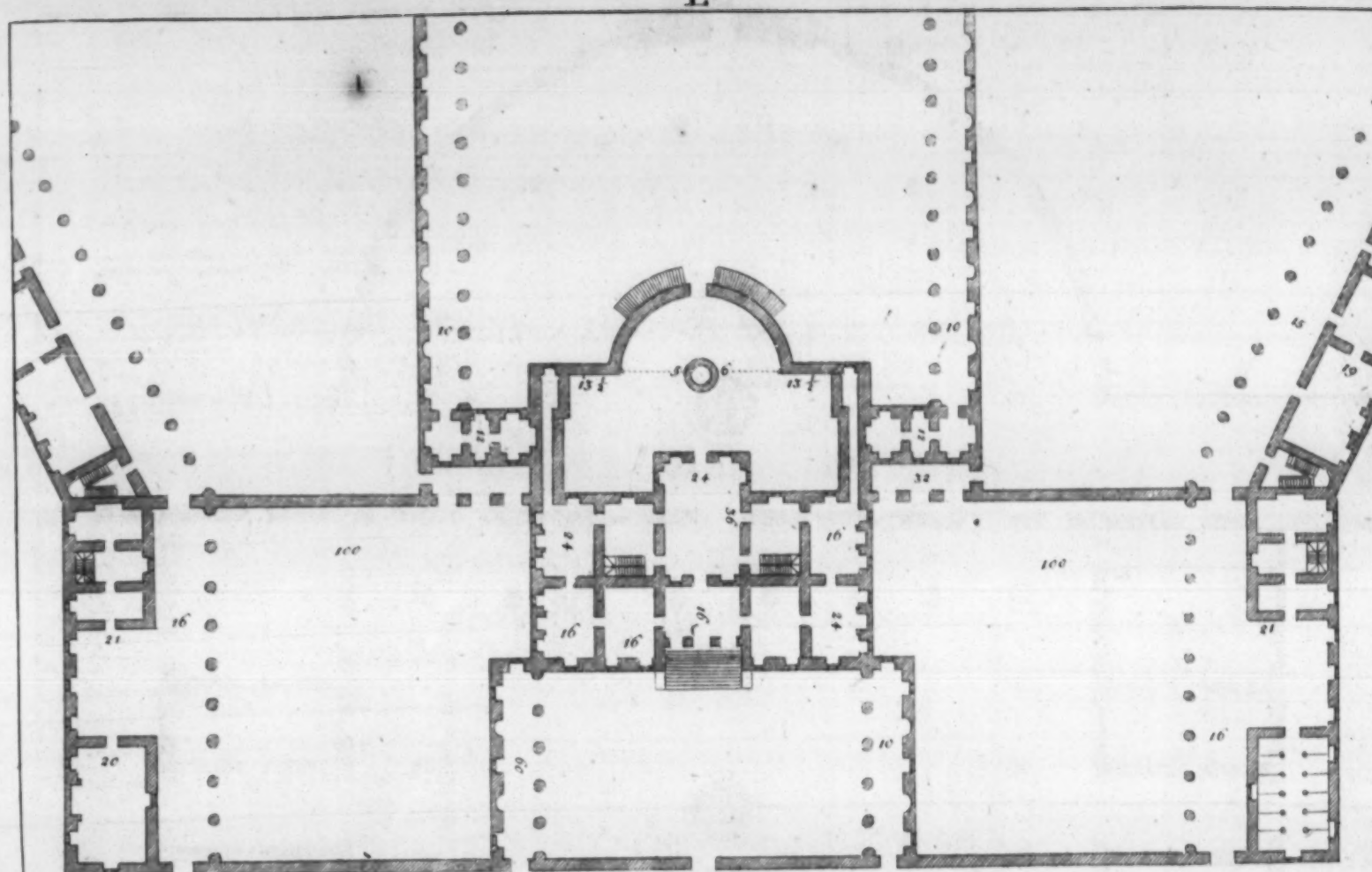
\* Plate L.

† Plate LI.

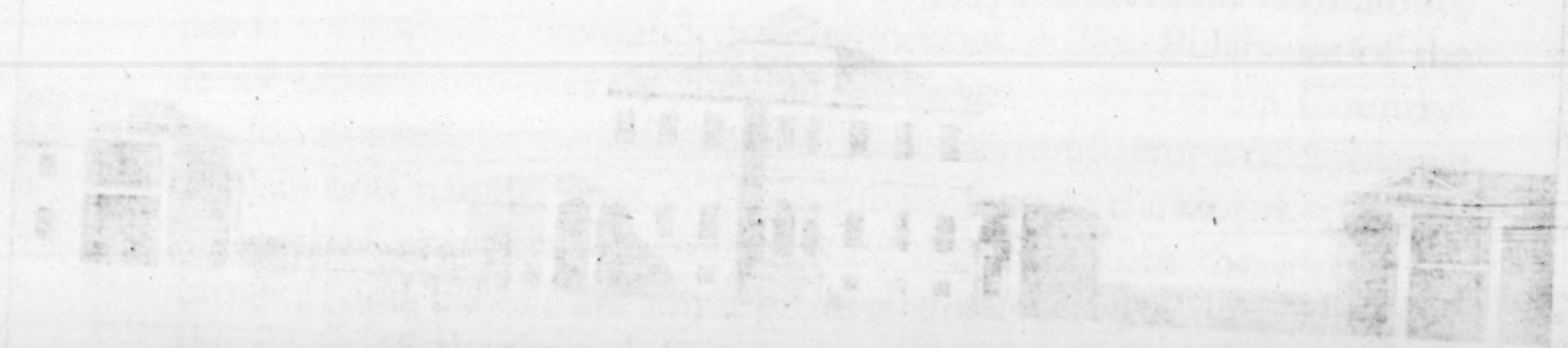
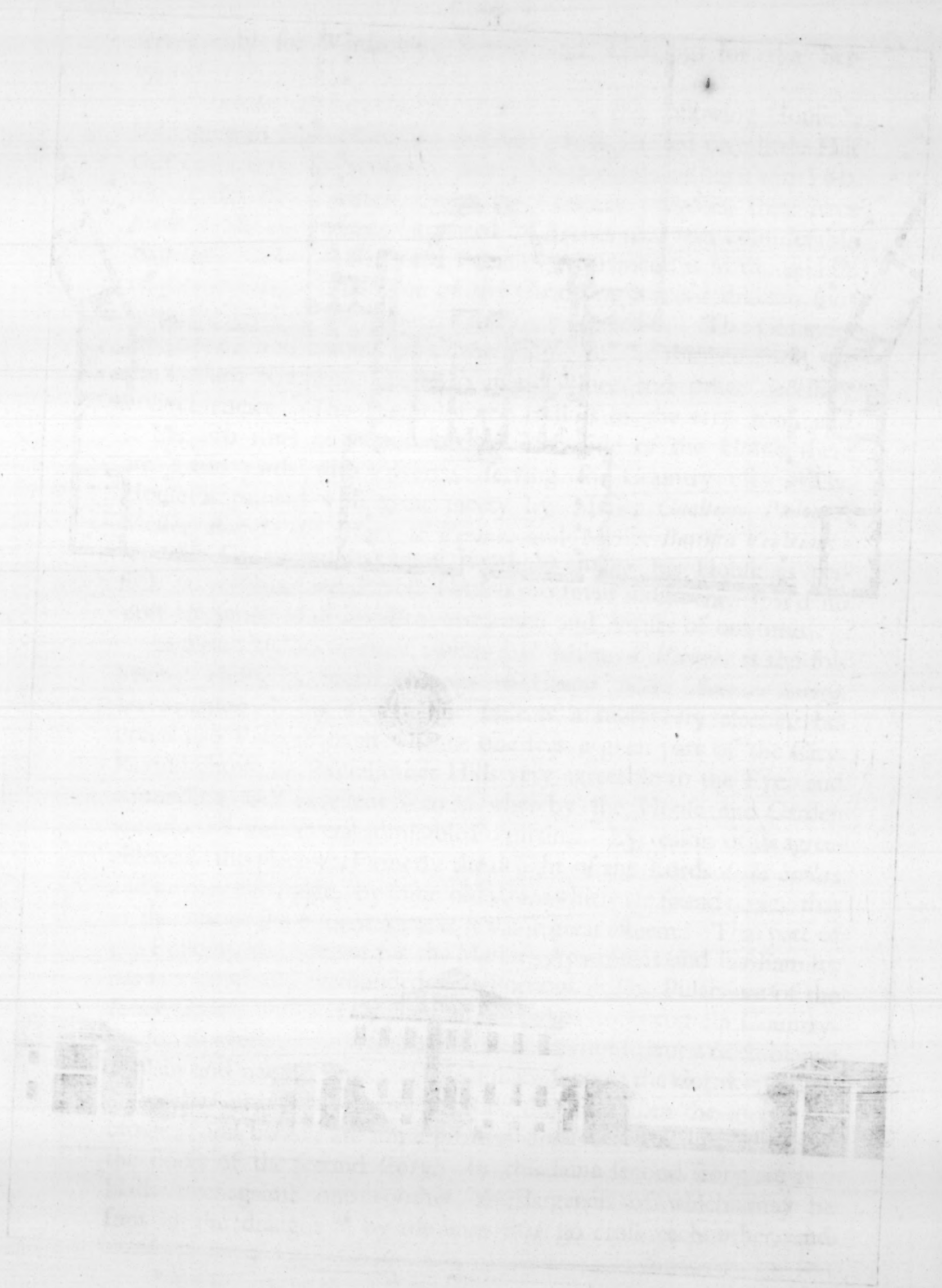
\*\* Plate EL.



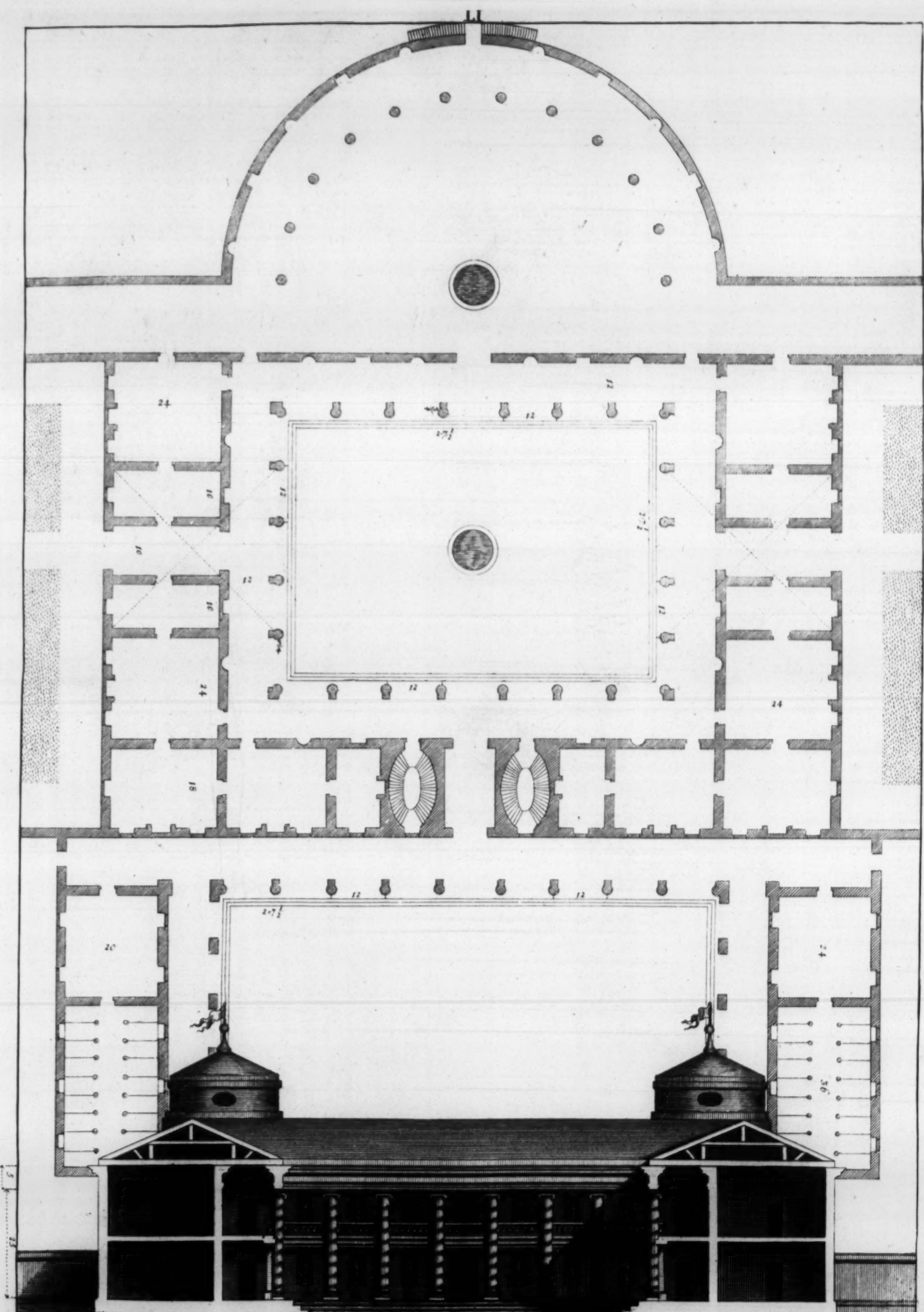
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*T. white Sulph*







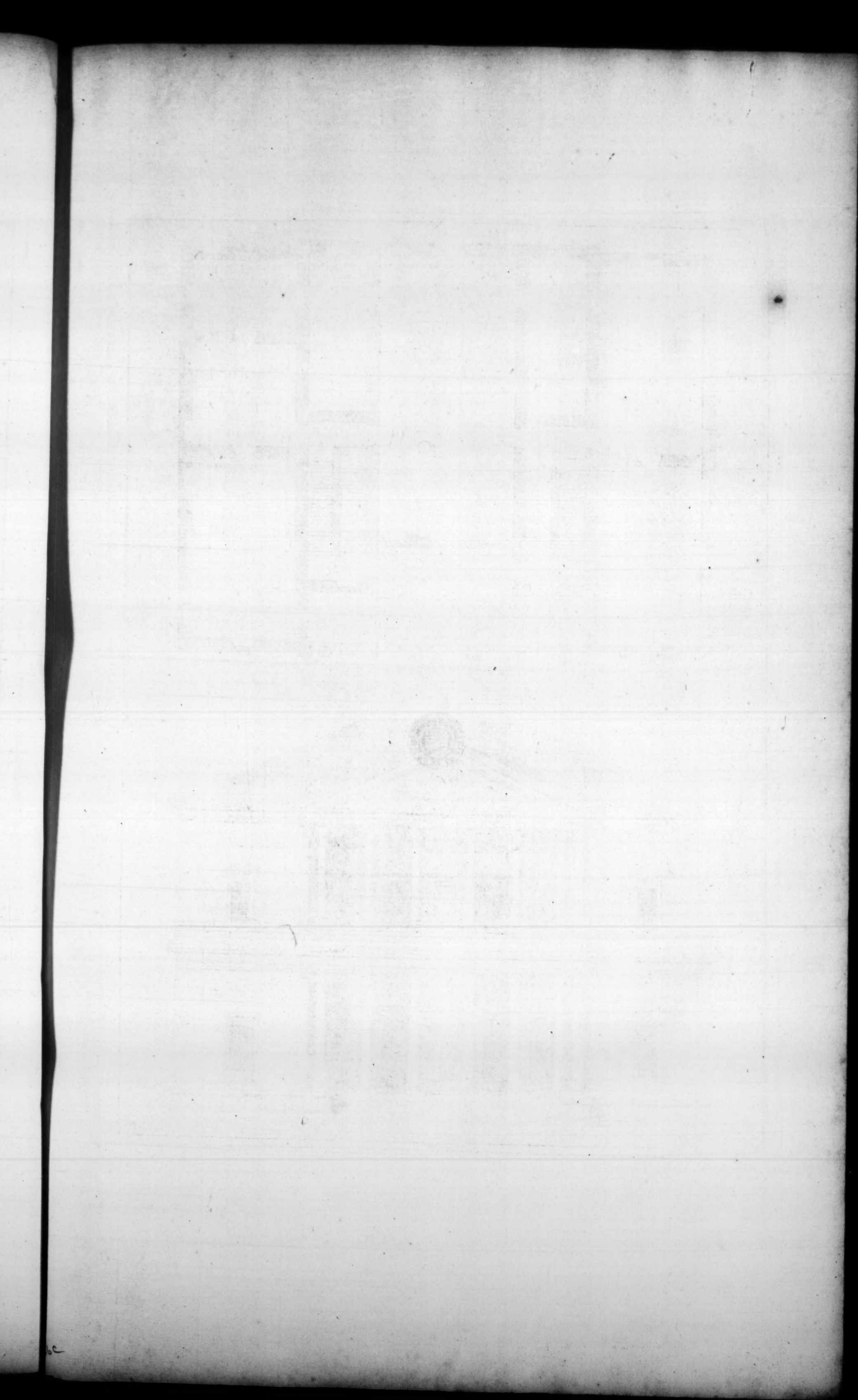


*J. Smith del.*











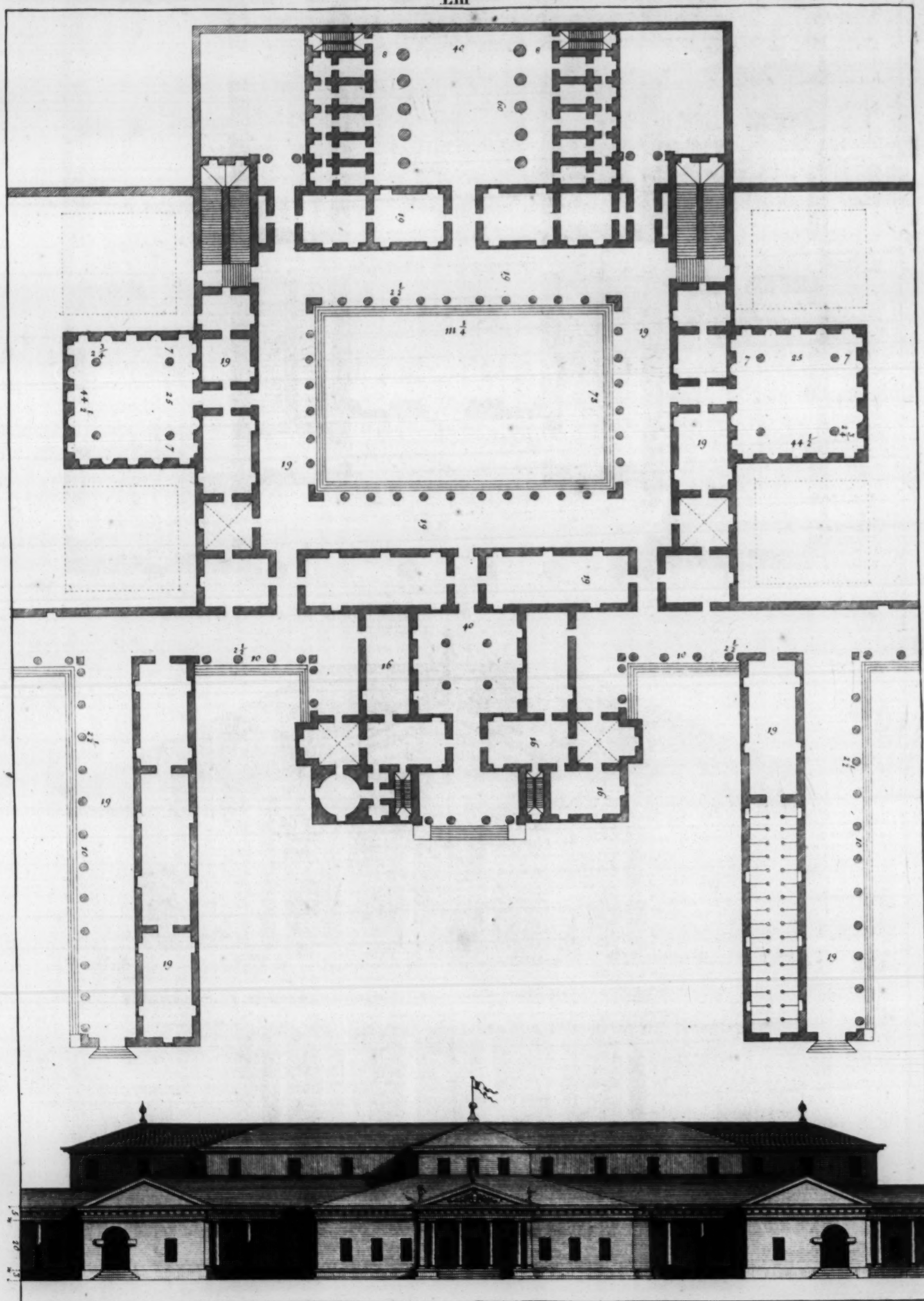




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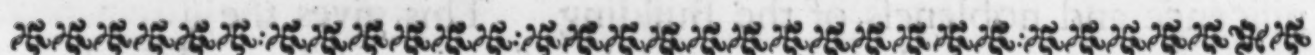






are carry'd on from the further Walls to the Pillars. Near this Court is the Farmer's yard, where there are on both sides all the coverts necessary for Country matters.

The following \* is the House of Count *Annibal Serego*, in a place of the *Collognese* called *la Miga*. The whole Building is rais'd on a Pedestal or Basement four foot and a half high; level to which is the floor of the first Chambers; under which are the Cellars, Kitchens, and other places for the Lodgings or other uses of the Family. The first Chambers are arch'd, and the second ceil'd. The Farmer's yard, with all the Country conveniencies, is near the House.



## CHAP. XVI.

### *Of the Country-houses of the Antients.*

**H**ITHERTO I have given the draughts of several Country-houses done by my direction: it remains that I now give you some † after the manner of the Antients, according to what *Vitruvius* has deliver'd; for in these you may see all the places belonging to the Lodgings, and the conveniencies of the Country, turn'd to the regions of the Heaven that are most proper, I shall not here insist upon what *Pliny* says about this Subject, my design being only at present to explain what *Vitruvius* says of it. The principal front of the Building is turn'd to the South, and has a Gallery, from which one enters by a passage into the Kitchen, which receives its light above the places adjacent, as it must have the Chimney in the middle. On the left-hand side are the stalls for the Oxen, the manger whereof must be turn'd to the East. The Bagnios must also be on the same side, and at the same distance from the Kitchen as from the Gallery, because of the room they require. On the right hand you have the Oil-presses, and other places for the Oil, which answer the places of the Bagnios, and are turn'd to the East, South, and West. The Cellars are backwards, far from all noise, and open to the North for fear of the Sun. The Granaries are above, and receive the same light, and the same way as the Cellars do. On the right and left sides of the Court are stalls for the Cattle, stables for the Horses, conveniencies for Sheep and other Animals; with Hay-lofts and Barns to put the Straw in, as well as Bake-houses, all which must be as far from any Fire as

\* Plate LII.

† Plate LIII.




may be. The Master's Habitation is backwards, the principal front of which is opposite to the Farmer's House; so that in these Country Buildings the Halls are always in the back part. All the same things were observ'd in these, whereof we have spoken above, in giving the draughts of the private Houses of the antients, which is the reason why I have had no regard now but to what purely concerns the Country. In all the Buildings which I have made in the Country, and also in some of those in Towns, I have always plac'd the Pediments before, where the principal Gates are; because they make the principal entry to the House more observable, and contribute very much to the magnificence and nobleness of the Building. This gives the fore-part a great advantage over the others, and therefore it must be made higher; besides that it is much properer to put there the Arms of the Owner, which are commonly plac'd in the middle of them. The antients employ'd them also in their works, as is to be seen in the old remains of Temples and other publick Buildings; from which 'tis probable, as I have observ'd in the Preface to my first Book, that they borrow'd the contrivance and proportions of private Houses. *Vitruvius*, in the last Chapter of his third Book, teaches us how to make them.

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## CHAP. XVII.

### *Of some Inventions suited to different situations.*

Y first intention was not to write but of those Buildings only that were brought to their perfection, or at least so far advanc'd, that one could soon hope to see them finish'd: but having observ'd, that it is often necessary to confine ones self to the situations, and that one has not always free room to build, I have thought it would not be amiss to add to my former draughts some new inventions of my own (which were desir'd of me by several Persons of Quality, tho some alterations in their affairs have obstructed the execution) because the irregularity and difficulty of their situation, and the method I have observ'd to contrive the Chambers and other places, so as to be correspondent and proportionable to each other, may, in my opinion, prove of no little use and advantage.

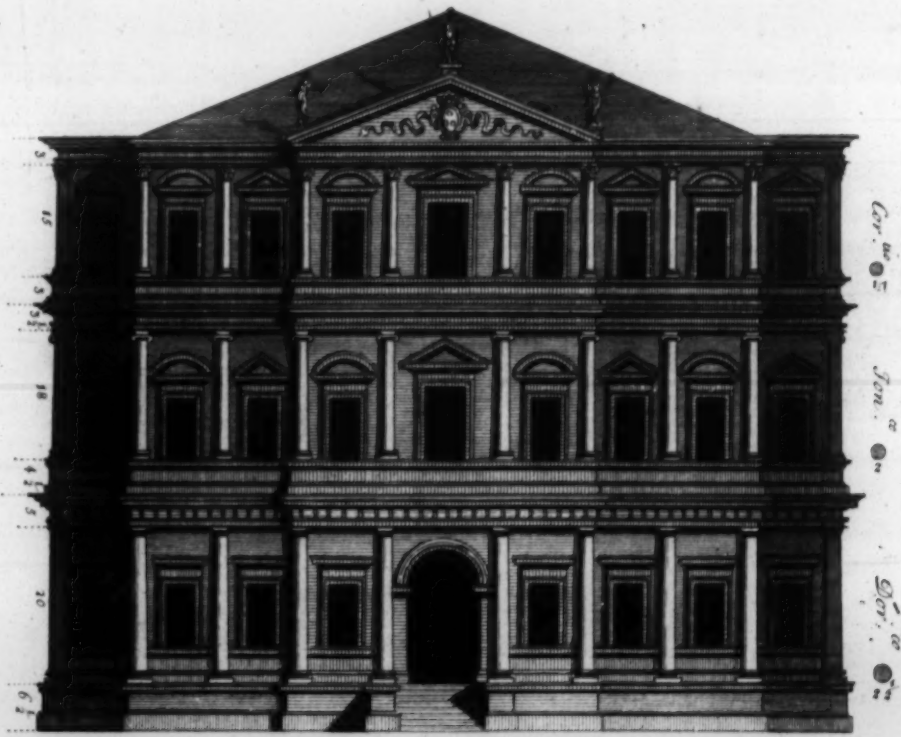
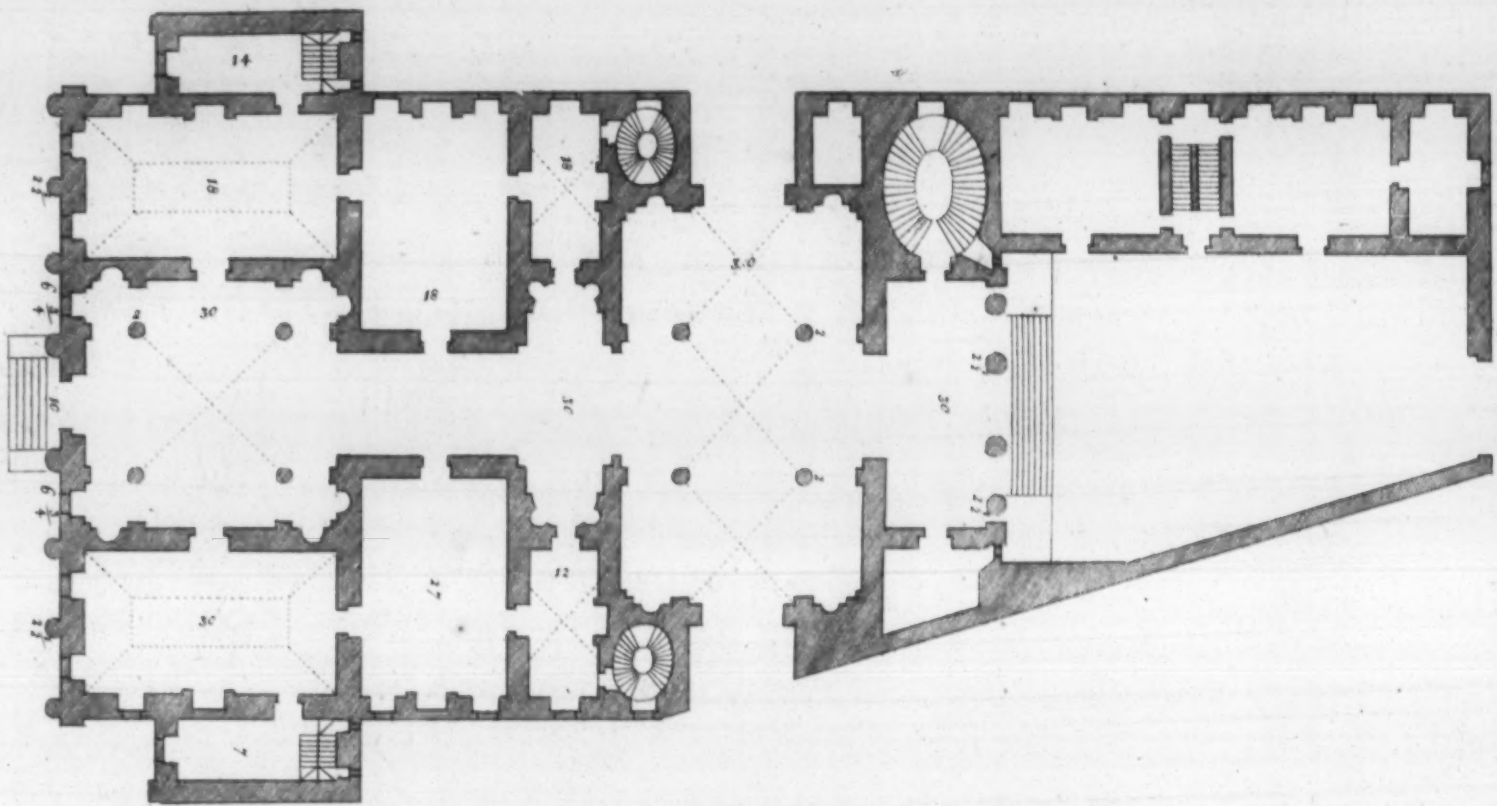
The situation of this first draught \* is of a pyramidal form: the basis of the Pyramid makes the principal front of the House,

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\* Plate LIV.

which



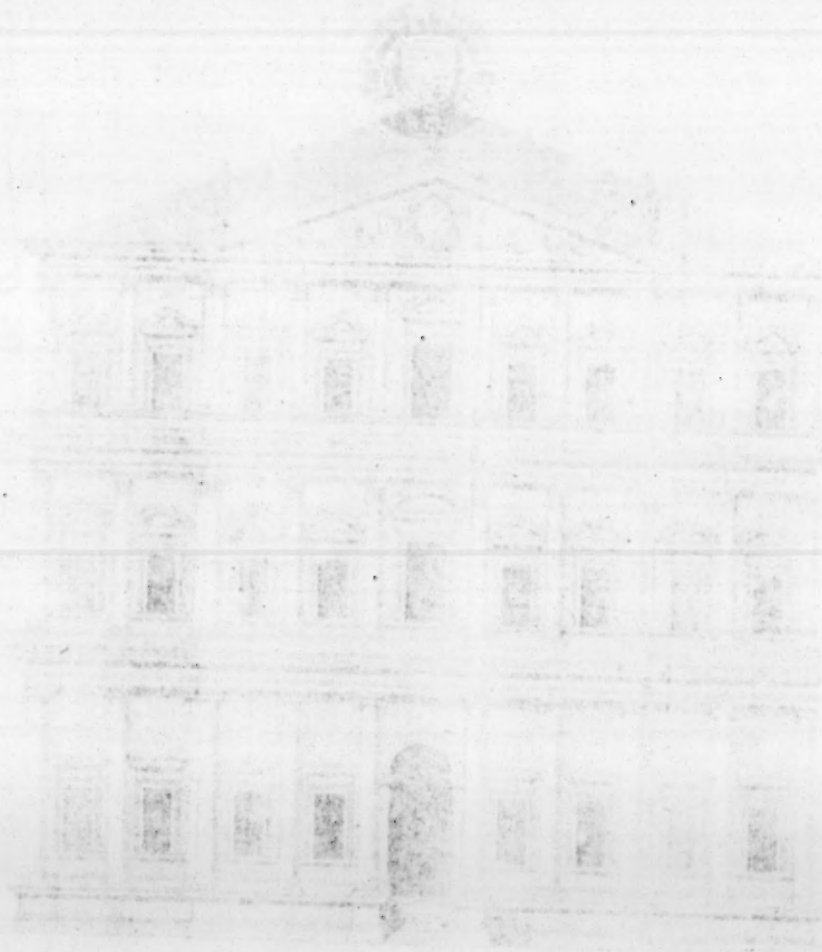


J. Cole Sculp.















which has three Orders of Pillars, *Dorick*, *Ionick*, and *Corinthian*. The *Vestibule* is square, and its Arch, the height and breadth whereof is equal, is supported by four columns. On the one and the other side are two Chambers, whose length is a square and two thirds, and they are arch'd after our first way. They have every one a Closet, with a small Stair-case to go up to the *Mezaninos*. At the end of the entry I had plac'd two Chambers a square and a half long, with two Closets near them of the same proportion, which would also have had their stairs to the *Mezaninos*: and farther, I contriv'd a Hall of a square and two thirds long, with columns equal to those of the *Vestibule*. Next to this there had been a Gallery, on both sides of which I would have plac'd two out-stairs, and farther on a yard, in one side of which should be the Kitchen. In the second story the Chambers were to be twenty foot high, and those of the third eighteen: but the height of each of the Halls was to be quite to the roof, and level with the Chambers of the second story; the Halls would have had some Balconies, or Corridors, wherein to place Persons of distinction at the time of Festivals, Banquetings, or such like diversions.

I made the following draught \* for a situation in *Venice*. The principal front has three Orders of columns, the *Ionick*, the *Corinthian*, and the *Composite*. The *Vestibule* advances a little outwards, and is adorn'd with four columns, equal and like to those of the front. The Chambers, which are on the wings, are arch'd after our first method. Besides these, there are other Chambers that are smaller, and Closets with stairs to go up to the *Mezaninos*. At the end of the entry one goes thro a passage into a second Hall, which on one side has a little Court, by which it receives its light, and on the other the principal Stair-case of an *Elliptical* form, and open in the middle, with columns all round, that support the steps. Farther on you have another passage whereby to enter into a Gallery, the columns of which are *Ionick*, and equal to those of the *Vestibule*. On each side of this Gallery there is an Apartment like those at the entry, but that on the left hand is in a place which contracts it a little more. Hard by there's a Court adorn'd quite round with columns, which form a Corridor, that serves for the Apartment of the Women, wherein they cook, and which therefore should be backwards. The upper part is like the lower one, except the Hall; which is above the entry, has no columns, and is rais'd to the roof; having a Cor-

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\* Plate LV.



ridor that is level to the Chambers of the third story, and might also serve the upper Windows, because this Hall has two rows of them. The floor of the lesser Hall will be of the same height with the Arches of the second Chambers, these being twenty three foot high. The Chambers of the third story are eighteen foot high, and ceil'd. All the Doors and Windows would be directly perpendicular over one another, and each Wall would bear its share of the weight, where the design executed. The Cellars, Landries, and other Offices, would have been under ground.

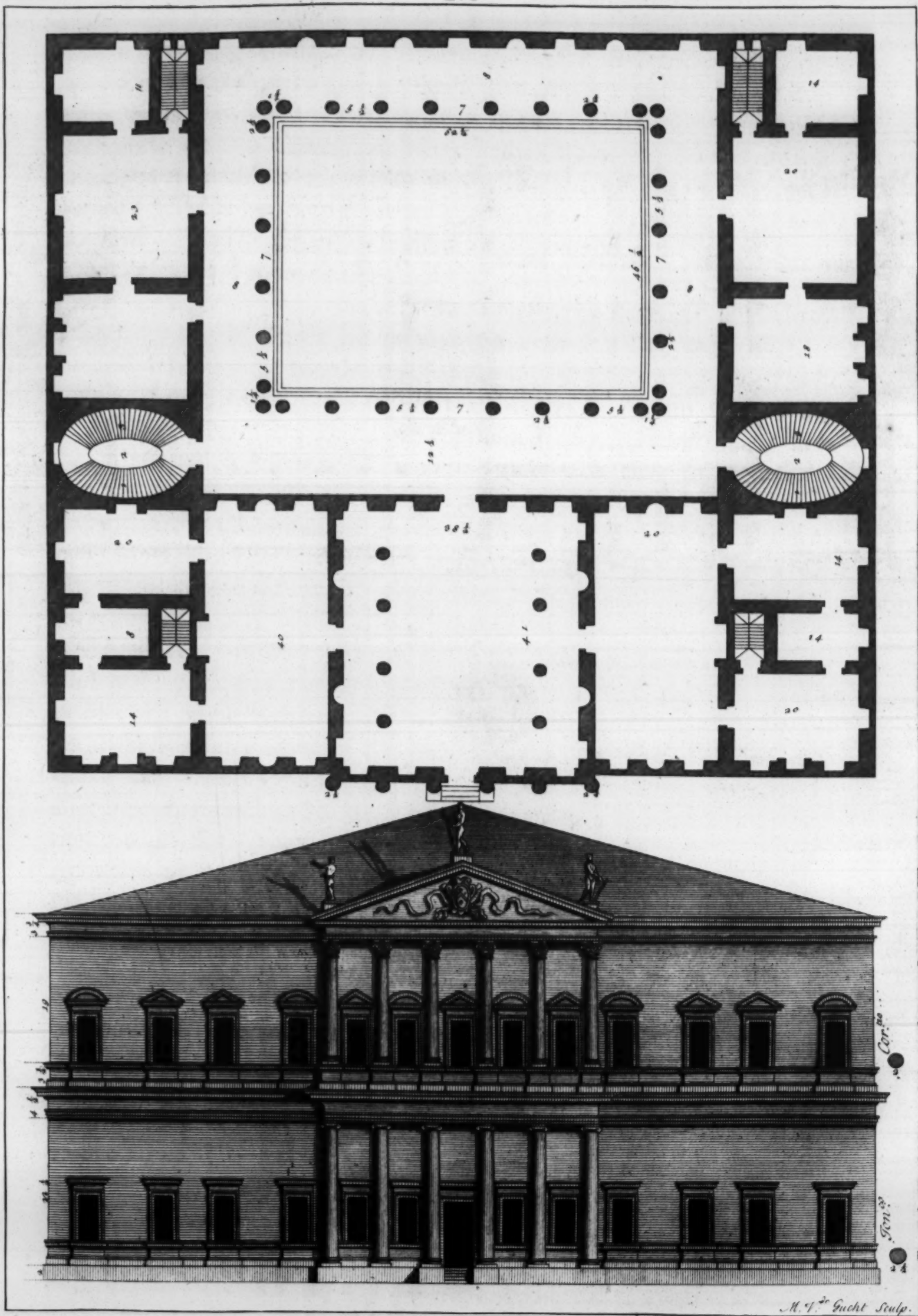
Some time ago I made the following draught \*, at the request of the two Brothers Count *Francisco* and Count *Lodoico de Trissini*, for a place they had in the City of *Vicenza*; according to which the House would have had a square *Vestibule*, divided into three spaces by rows of *Corinthian* columns, to give more strength and proportion to its Arch. On the wings would have been two Apartments, with seven Rooms in each, including three *Mezaninos*, for which the stairs, which are next the Closets, would have serv'd. The height of the great Rooms was to be twenty seven foot; that of the lesser, and least of all but eighteen. Farther in you would have found a Court, furrounded with Galleries of the *Ionick* Order. The columns of the first floor of the fore front were also to be *Ionick*, and equal to those of the Court; those also of the second floor were to be *Corinthian*. The Hall would have been wholly free, of the same bigness with the *Vestibule*, and rais'd up to the roof; and level to the floor of its *Soffita* there would have been a Corridor. The great Rooms would have been ceil'd, but the lesser and smallest ones arch'd. The Womens Apartment, with the Kitchen and the like Offices, were to be on one side of the Court; as the cellars, a place for firing, and the rest of the Household conveniencies, were to be under ground.

This other invention † was for Count *Giacomo Angarano*, who had also a spot of ground in the same City. The columns of the front are of the *Composite* Order. The Chambers on the side of the entry are a square two thirds long. Close to them there is a Closet, with a *Mezanino* above it. After this, you pass to a Court furrounded with *Porticos*, the columns whereof are thirty foot, with Pilasters behind them (which *Vitruvius* calls *Parastates*) to support the floor of the second Gallery, upon which there is yet another open one, level with the highest floor of

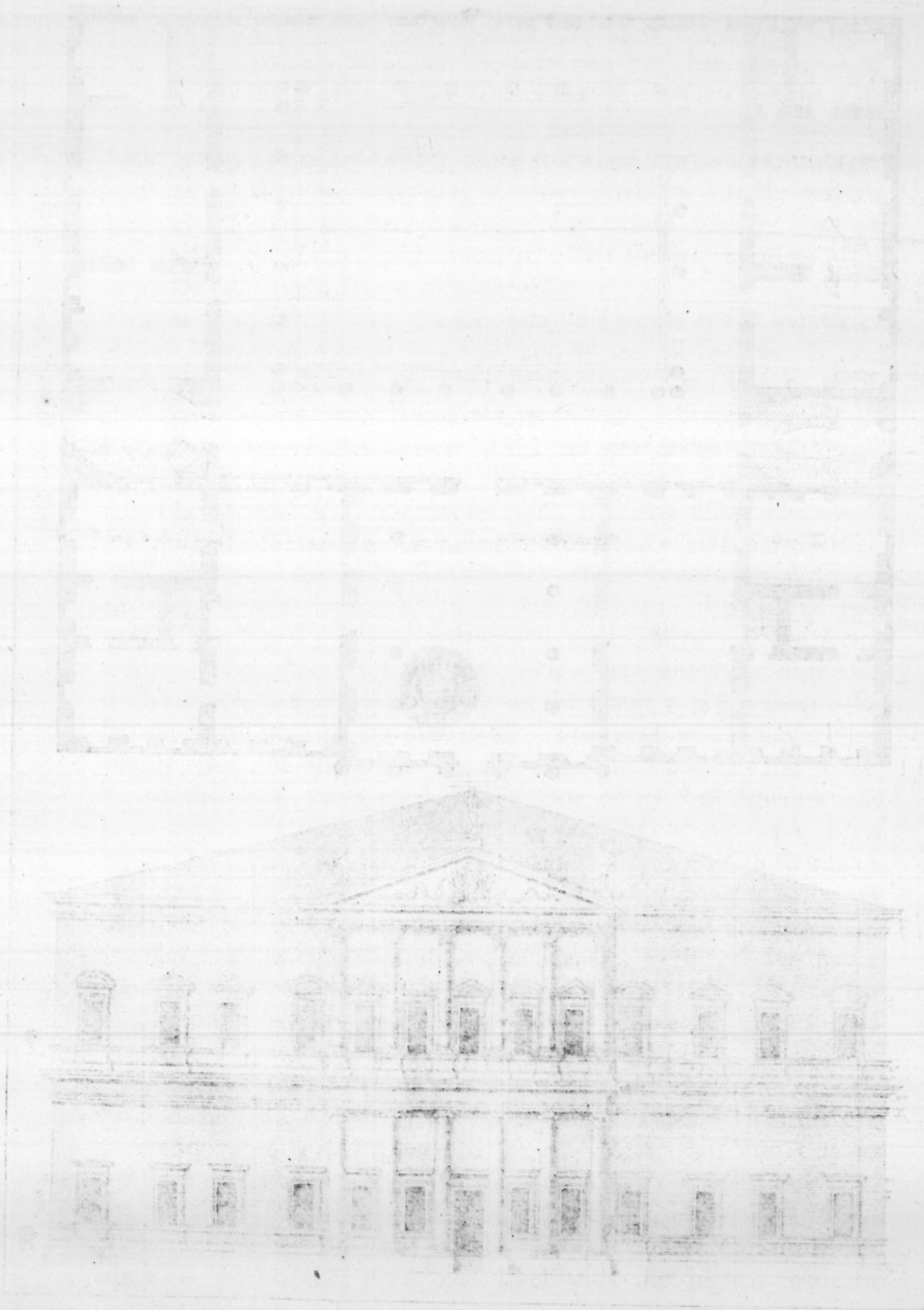
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\* Plate LVI. † Plate LVII.

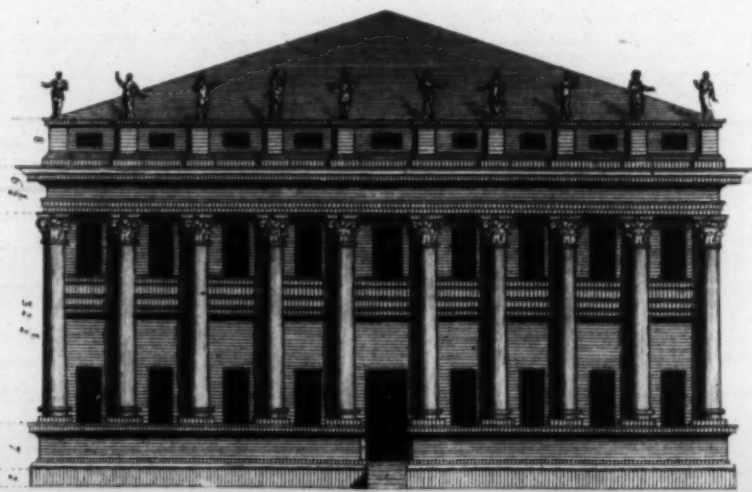
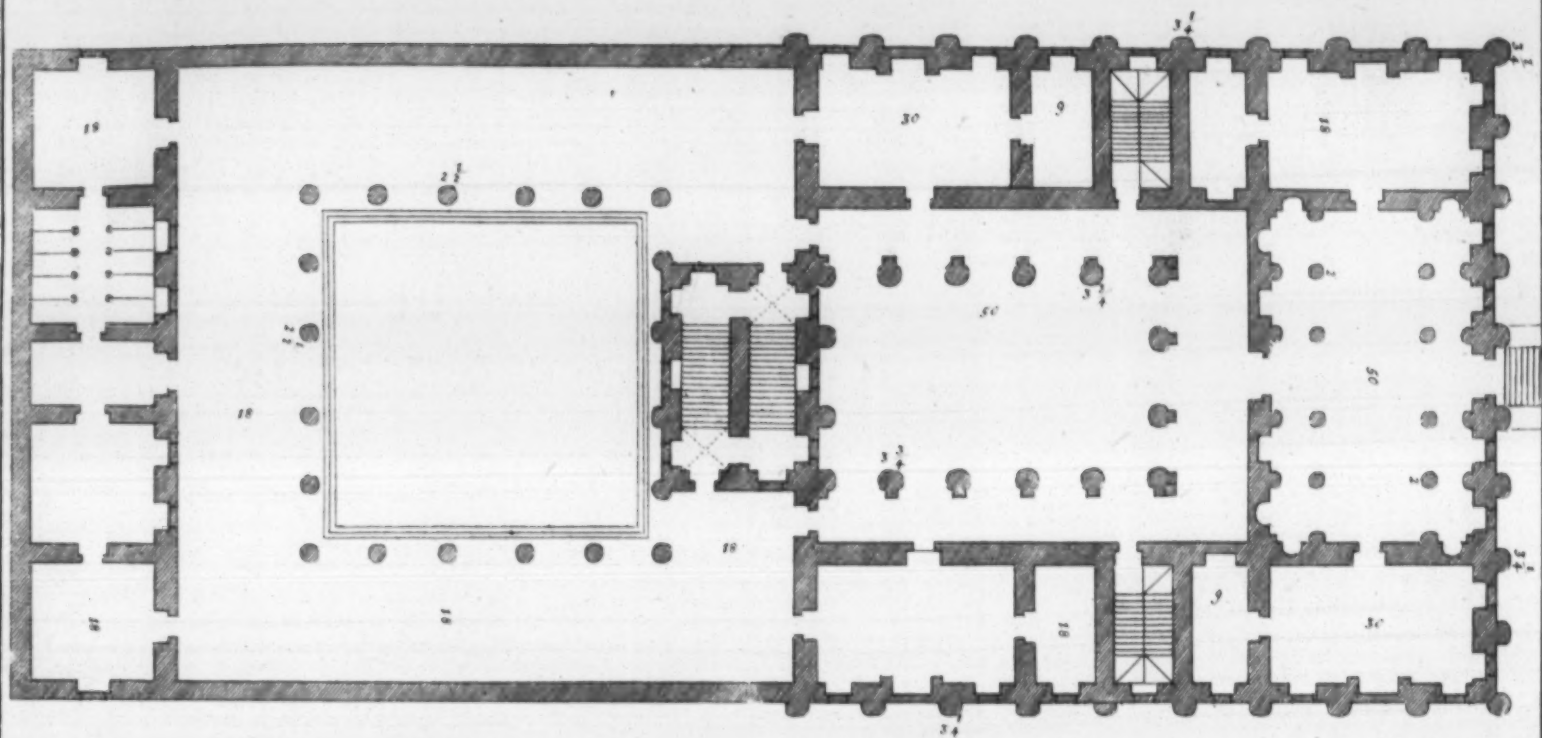










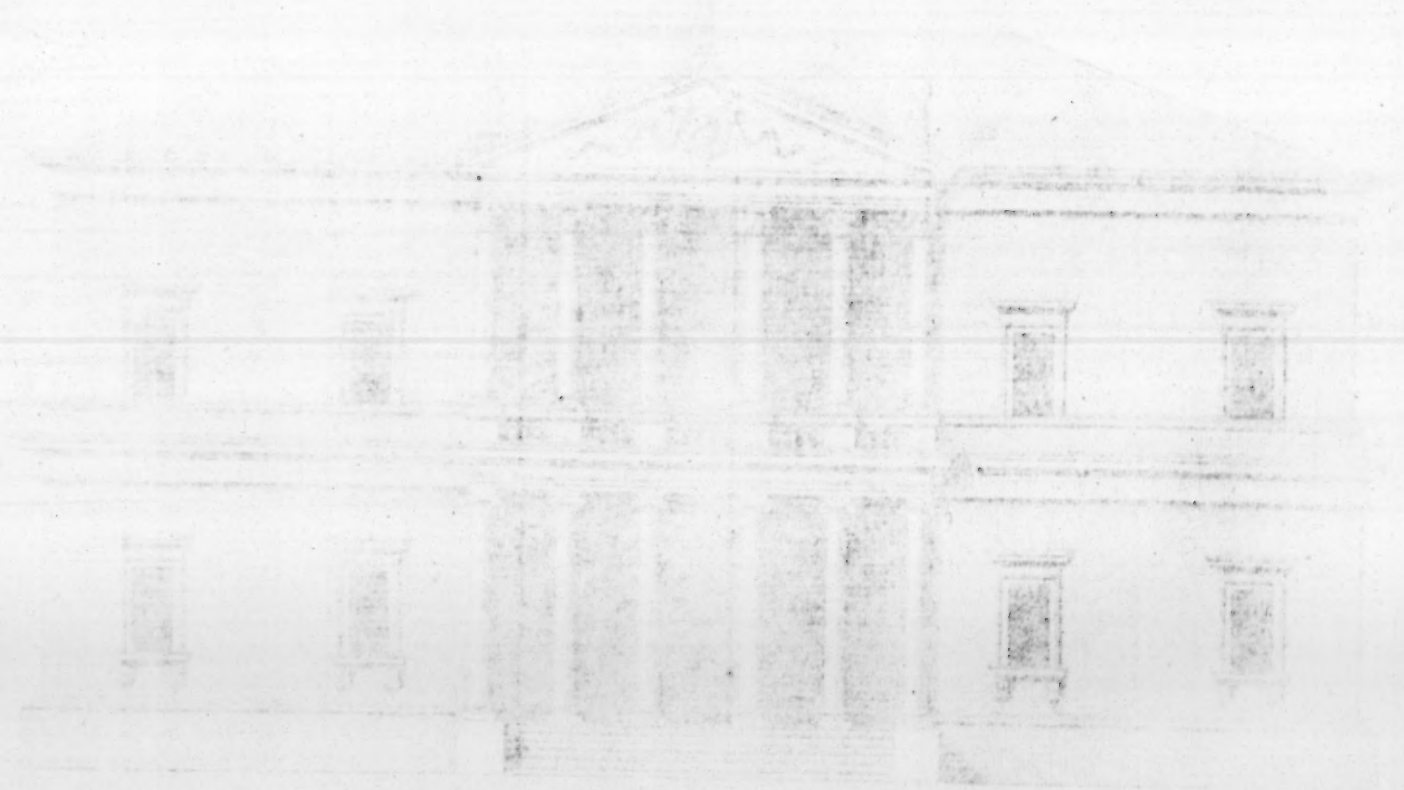




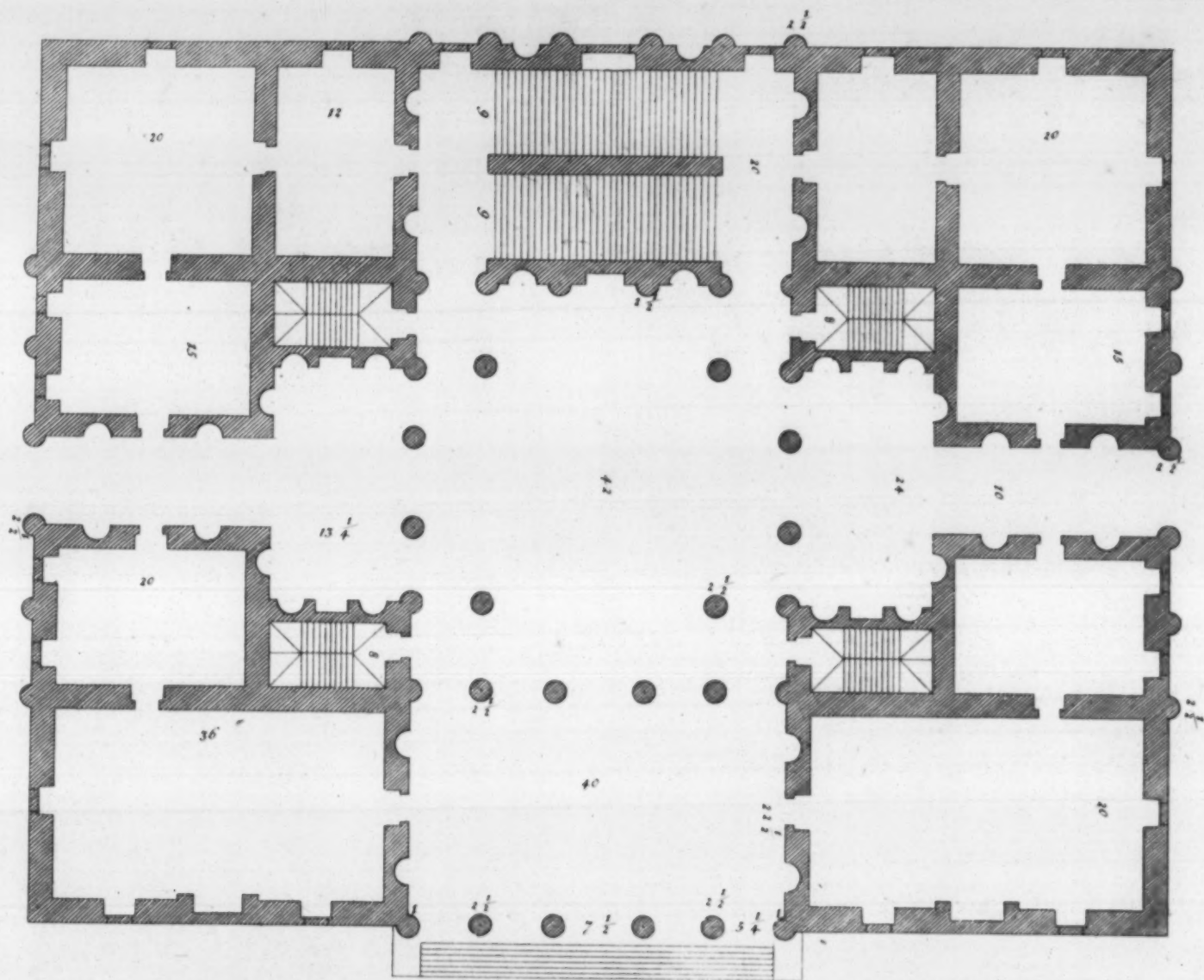




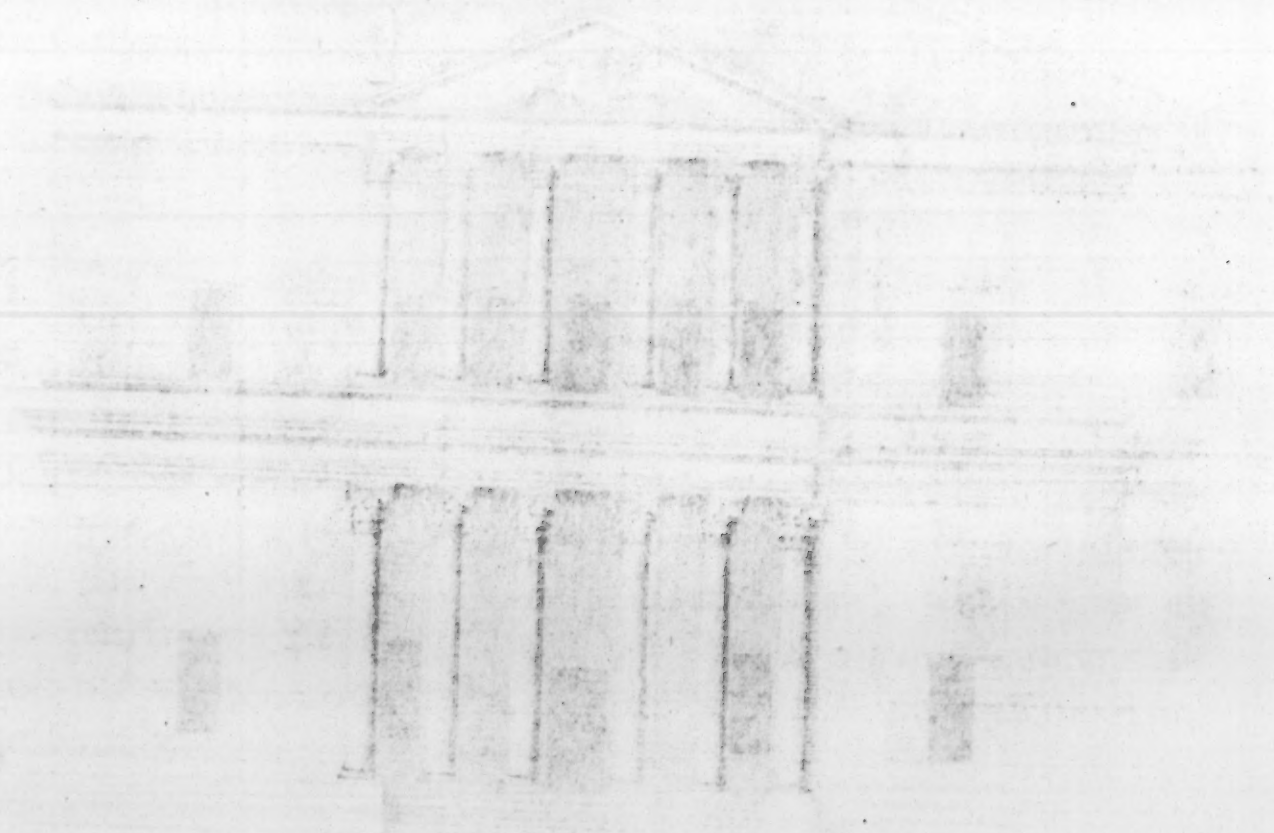
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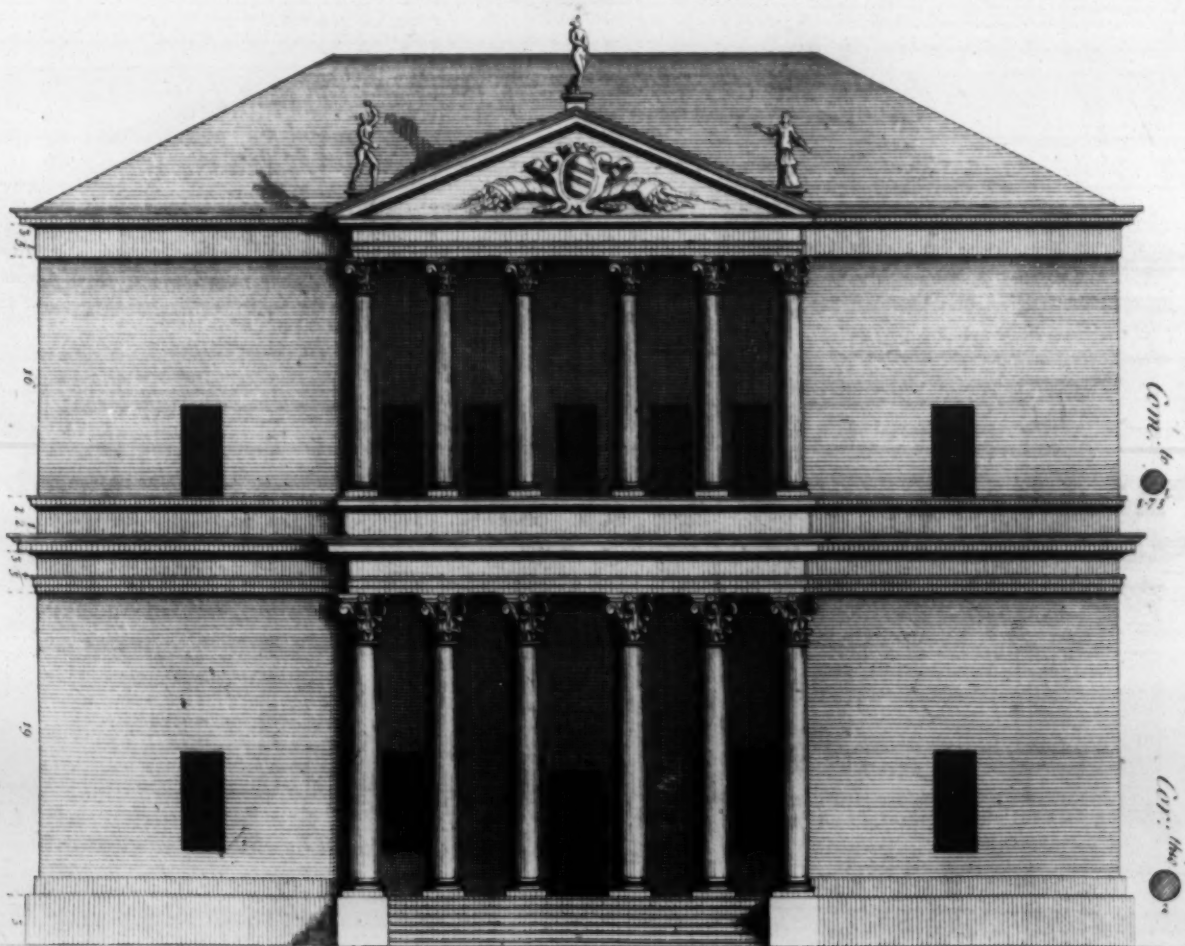
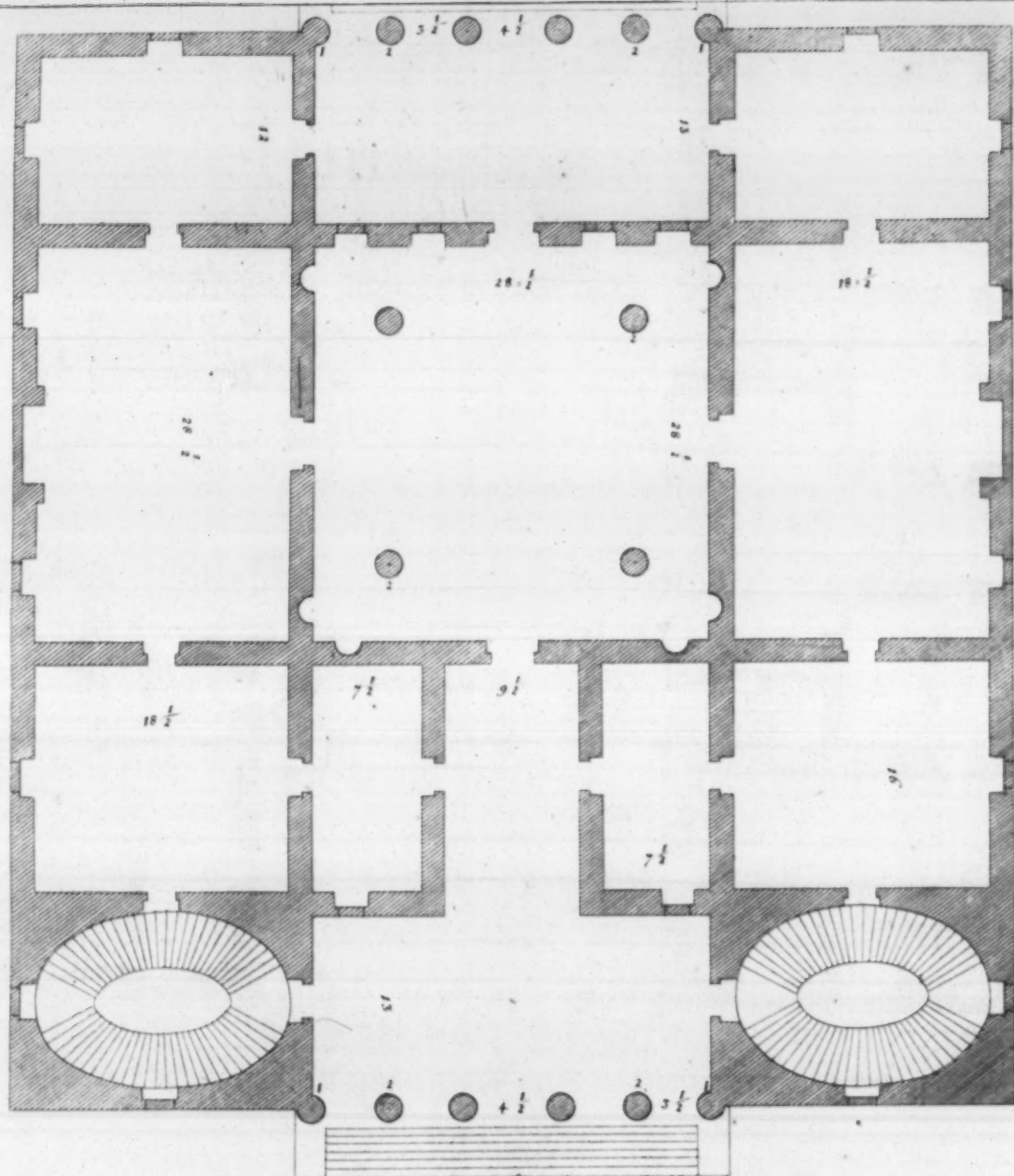








LIX





the House, rail'd all round. Farther in, you find yet another Court, surrounded also with *Porticos*; the columns of the first Order of which are *Dorick*, and of the second *Ionick*. The stairs are in the Court, and opposite to them are Stables, where might also be plac'd the Kitchen and the Servants Lodgings. As to the upper part, the Hall should have been without columns, and its Ceiling must have reach'd to the roof of the House. The Chambers would have been equally high and broad, having Closets and *Mezaninos* like the lower ones. One could make a Corridor upon the Columns of the fore-front of the House, which might be very convenient on several occasions.

In *Verona*, on a very fine situation called *Gli Portoni della Brà*, Count *Gio. Battista della Torre* had a mind to build according to the following draught \*. The House was to be adorn'd with Gardens, and all manner of imbellishments that can make a place convenient and delightful. The first Rooms were to be arch'd, and above all the little ones would have been *Mezaninos*, with small stairs to go up to them. The Chambers of the second story were to be ceil'd. The height of the Hall was to be as far as the roof, and level with the floor of the *Soffit* would have been a Corridor or Balcony. It was to receive its light from the Gallery, and from the Windows it was to have on the wings.

I had also given to Signor *Gio. Battista Garzadore*, a *Vicentin* Gentleman, the following draught †, in which there are two Galleries after the *Corinthian* Order, the one before and the other behind. These Galleries have their *Soffits*, and the lower Hall also, which is in the inner part of the House; that during the Summer they may be cool there, and it has further two rows of Windows. Its *Soffit* is supported by four columns, which likewise support the floor of another square Hall that is above it, but without columns. It is almost as high as it is broad, and indeed only higher, as the Cornice is in thickness. The Arches of the great Rooms are rais'd after our third method, and those of the Closets are sixteen foot. The upper Rooms are ceil'd. The columns of the second Galleries are *Composite*, and a fifth part less than the lower ones. Upon these Galleries are *Frontons*, which give, as I have already said, a great air and nobleness to a Building, making it appear higher in the middle than on the wings; besides that, they also serve to contain the Arms of the Family.

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\* Plate LVIII. † Plate LIX.



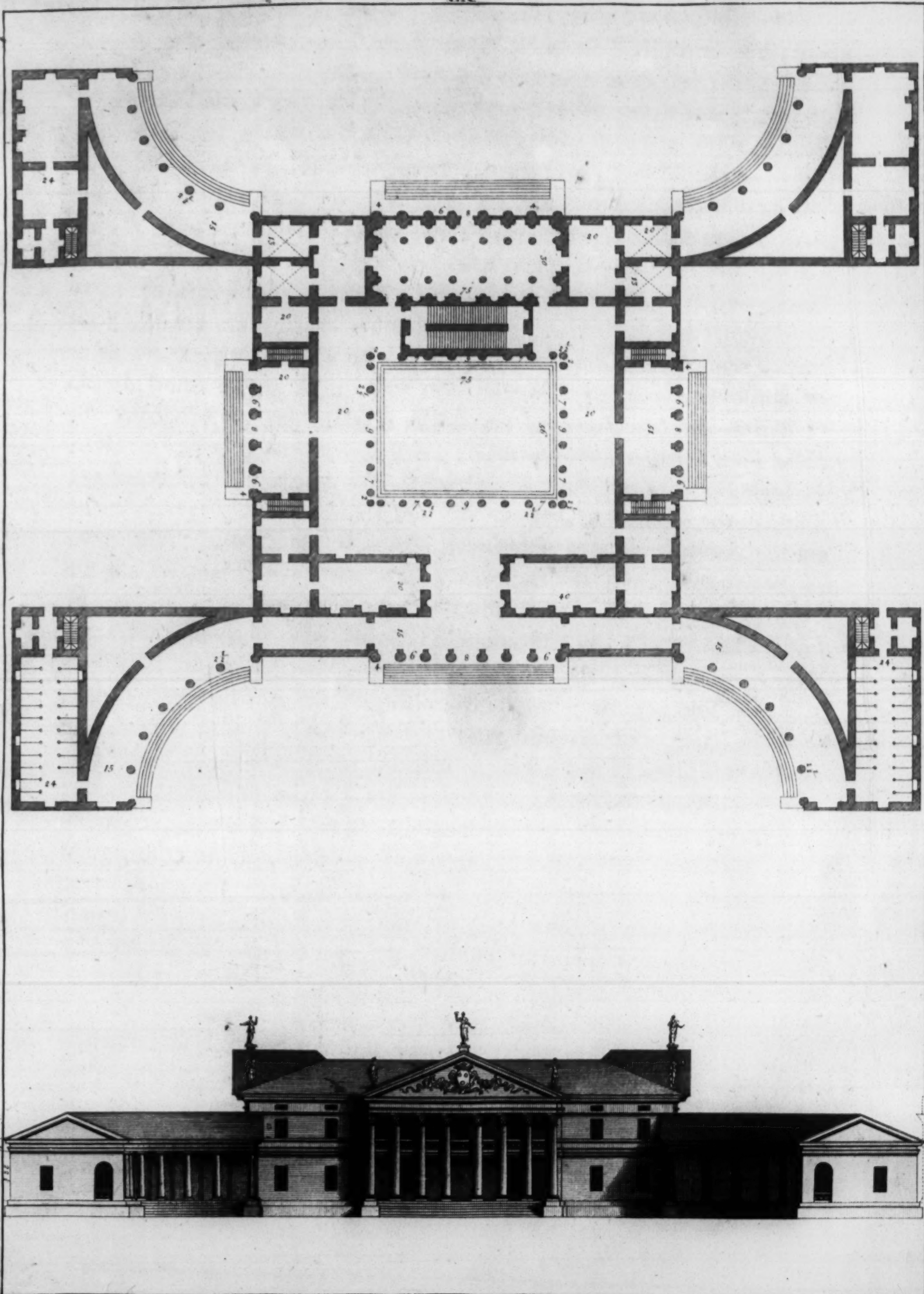
The illustrious Signor *Leonardo Mocenigo* desir'd I should make the following draught \* for a spot of ground he had on the *Brenta*. Four Galleries, of a quarter of a circle each, like the Arms of the House, seem to accost and embrace all those that come towards it. The Stables are on the sides of these Galleries, in the fore part, that looks to the River; and the Kitchen, with the Farmer's and Husbandmens Apartments, are on the back part, taking up also the sides. The Gallery, which is in the middle of the fore-front, is after the *Pycnostyle* manner, that is to say, that the columns are very thick, and near one another; and because these columns are forty foot high, they have some pilasters behind them, that are two foot broad, and a foot and three inches thick, which support the floor of the upper Gallery. Further one finds a Court surrounded with Galleries after the *Ionick* Order. The *Porticos* are as broad as the Pillars are high, excepting only one diameter of a column. The Galleries and the Chambers that look towards the Gardens, are also of the same breadth, to the end that the Walls, which make the separation of every Apartment, may be directly in the middle, to bear the weight of the roof. The first Chambers would be very convenient Dining-rooms, if there should happen to be great Company in the House. They are of a double proportion. The Chambers on the angles are square, and are arch'd with a *Fascia*. The impost is as high as the diameter of the Chamber, and the Arches are a third part of their breadth in height. The Hall is two squares and a half in length: columns are plac'd in, that they may make the length and breadth proportionable to the height; and these columns should have been only in the lower Hall, that the upper one might be altogether free and agreeable. The columns of the Galleries above the Court, are a fifth less than the lower ones, and are *Corinthian*. The upper Rooms are as high as they are broad. The stairs are at the end of the Court, and go up each a contrary way to the other.

With this draught I shall, God be prais'd, finish these two Books, wherein I have endeavour'd with all possible brevity to put together, and to teach most clearly, as well by Words as by Draughts, all those things that I have thought the most necessary and important in the Art of Building well; and more particularly with respect to private Houses, which are to be beautiful and magnificent, convenient for the Owner, and creditable for the Builder.

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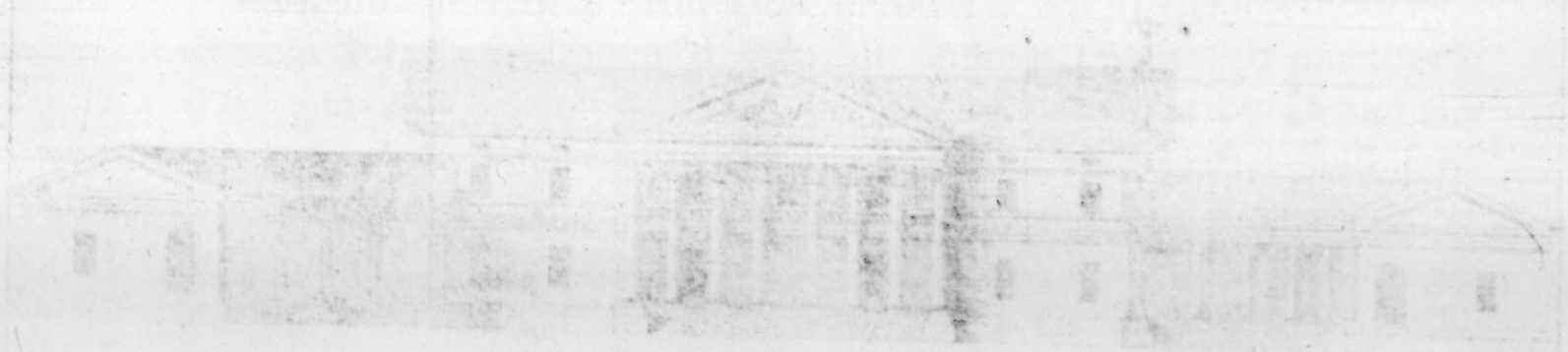
\* Plate LX.



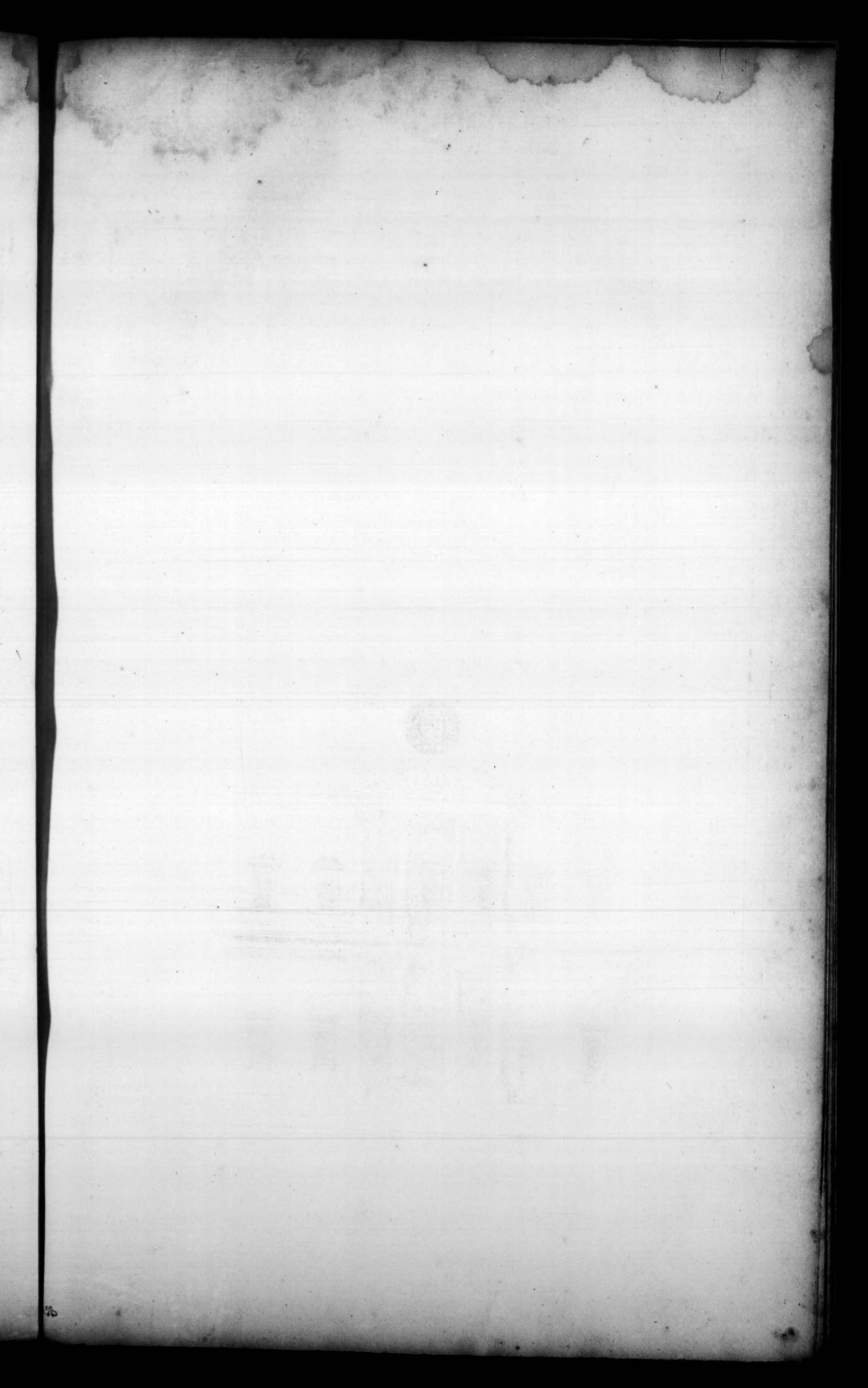


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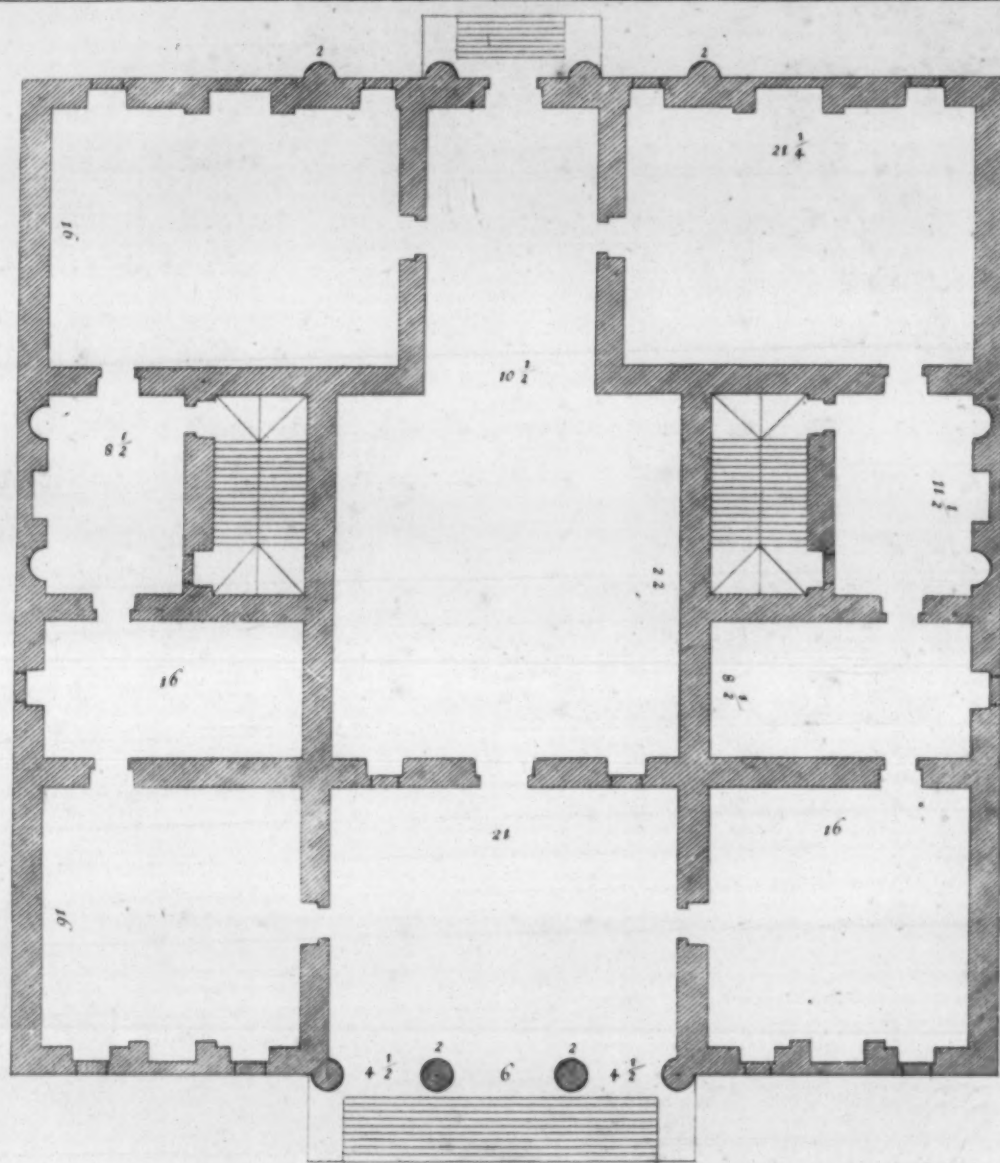








LXI





## REMARK.

*I know not the reason why this plate \* was not inserted by Palladio; in some part of his Book, among his other draughts of private Houses, since it appears manifestly, that it comes from the same hand with all the rest, and that 'tis probable it was not design'd for any other purpose; if it be not, perhaps, that the Graver did not finish it time enough for the Printer, as we have seen above, page 62, that the like has happen'd once before. But be this how it will, the draught deserves a place here. Yet that it may be distinguish'd as adopted, or rather a posthumous piece of this our Author, I have singulariz'd it by a different Character, and give it the last place, to avoid breaking in upon the order of the Book: besides that this plate, with two others of the same Author, (which are the plan and elevation of the Dorick Temple, that I reserve for the conclusion of this work) were found among the rest, that were sent from Venice to Mr. de Chambray at Paris, who first inserted them in his French Translation, from whence I took it.*

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\* Plate LXI.

*The end of the second Book.*





